THE CULTIVATOR.

THIRD] TO IMPROVE THE SOIL AND THE MIND. [SERIES.

VOL. XI. ALBANY, N.Y., SEPTEMBER, 1863. No. 9.

PUBLISHED BY LUTHER TUCKER & SON,
EDITORS AND PROPRIETORS, 395 BROADWAY, ALBANY, N. Y.

J. J. THOMAS, ASSOCIATE EDITOR, UNION SPRINGS, N. Y.

TERMS—FIFTY CENTS PER YEAR.—Ten copies of the CULTIVATOR and Ten of the ANNUAL REGISTER OF RURAL AFFAIRS, with one of each free to the Agent, Five Dollars.

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The Cultivator & Country Gentleman.

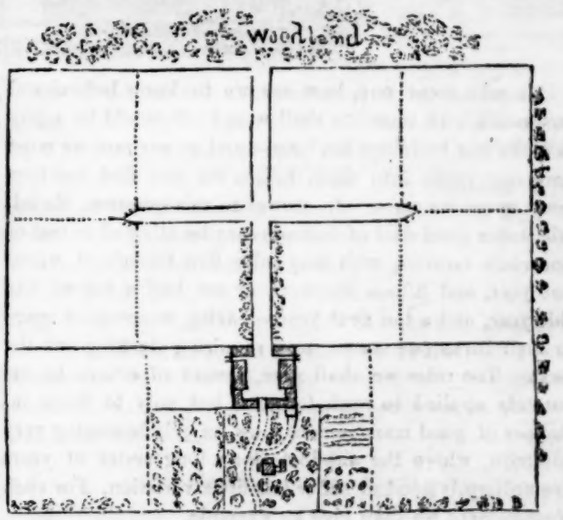
FARM FENCES AND BUILDINGS.

Every farmer is aware that the construction of all the necessary fences, and the erection of the required buildings, need a large outlay of capital. But for the precise amount an estimate is scarcely ever made; guess work and vague conjecture are the only guides, and, as a necessary consequence, the whole is executed without system, and by patch-work and piecemeal. Such management is the most costly in the end; and on the other hand, nothing is more conducive to economy in outlay than previously well digested and systematic plans.

Fencing.—Many old farms are irregularly fenced; but whether old or new, they should as soon as practicable be regularly divided in the best manner. The old fences should be removed when necessary, and new ones erected in the right place. If this cannot be done all at once, it may be performed to best advantage in successive portions by adhering throughout to the plan adopted beforehand. In order to assist in this object, it would be well to examine the principles of laying out farms, which may be found on page 105, vol. 1, of RURAL AFFAIRS, or on page 132, vol. 2 of same work, accompanied with several plans. We copy a single one to show how it may be neatly and regularly done, giving access to all the fields with but a little amount of farm-road.

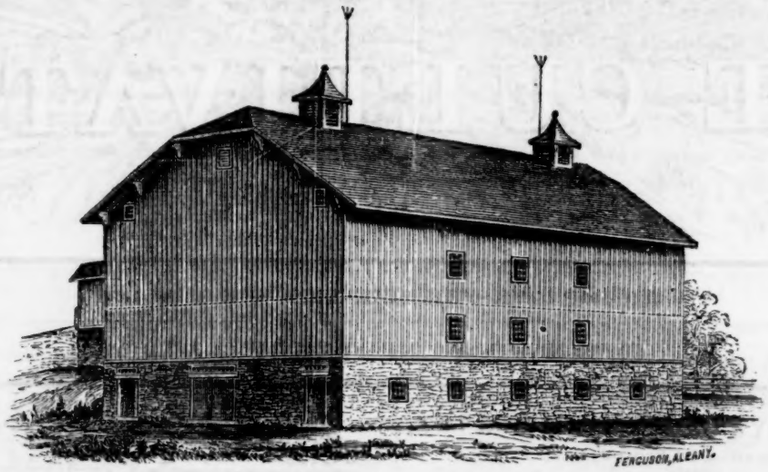
We will suppose for example that this is a two hundred acre farm, forty acres of which are in wood-land, and the remaining one hundred and sixty, being half a mile square, under cultivation—the question occurs what will it cost to fence the improved part of this farm? And if more than the owner has at command, what part shall he first enclose, until more means are at his disposal?

The boundaries, being half a mile on each side, will be two miles in length, but as the two sides join neighbors, one-half of these two sides will be made by them as line fences, reducing the boundaries to a mile and a half. It



will be further found by examining the plan, that two miles and a half more fences are needed for the interior sub-divisions making four miles in all. If those fences cost one dollar per rod, their aggregate expense will be twelve hundred and eighty dollars. Where timber is abundant, common rail or worm fence is made for less; good post and rail fence for seventy-five cents to one dollar; substantial post and board fence can seldom be constructed for less than one dollar and twenty-five cents; and stone wall, the best and most durable of all farm barriers, requires from one to five dollars per rod—the cheapest, well made, half wall, laid in a trench, requires at least one dollar, and good full walls not less than two or three dollars, including all expenses. The lowest average, therefore, is one dollar, as already stated. Now if making these ten fields will use up more means than can be appropriated, the farm may be divided into only four lots, omitting the fences indicated by the dotted lines, and the two side lanes—all of which amount to a mile and three-quarters, and saving temporarily an outlay of five hundred and sixty dollars. These remaining fences may be built on any future occasion, and the whole ten lots completed.

Buildings.—Very few farmers have any adequate notion of the accurate amount of barn room which their farms require. They build a barn of moderate dimensions, and soon finding it too small to hold the crops they raise, erect another, or place a lean-to against it; and subsequently other additions are made, until the whole becomes an irregular mass of buildings, without order, compactness, or convenience, and requiring much more roof and exterior wall, and consequently costing much more than the single, well arranged structure.



But asks some one, how are we to know beforehand how much barn room we shall want? It would be a pity to make our buildings too large—and at any rate we must draw our crops into them before we can find out how much space we want. In answer to this question, we admit that a good deal of latitude may be allowed to bad or uncertain farmers, who may raise five bushels of wheat one year, and fifteen another; or cut half a ton of hay this year, and a ton next year—leaving unoccupied space in their barns one season, and requiring stacking out the next. The rules we shall give, cannot of course be accurately applied to such farmers, but only to those instances of good management, now happily becoming very common, where the products for a long series of years are uniformly good or suffer but little variation. For such management we shall give an example.

The farm we have already represented contains a hundred and sixty improved acres, and we will suppose that about one-third each is devoted to meadow, pasture and grain. Twenty acres of the latter may be corn, stored in a separate building or crib, which should have a capacity for a thousand bushels, being fifty bushels per acre. The meadow should afford two tons per acre, and yield about a hundred tons. The sown grain, over thirty acres, may yield a corresponding bulk of straw, or about sixty tons. The barn should, therefore, besides other matters, have a capacity for one hundred and sixty tons, or over one ton per acre as an average. Allowing 500 cubic feet for each ton, (perhaps 600 would be nearer,) it would require a bay or mow about 60 feet long and 20 feet wide, for two tons to each foot of depth. If the barn were of such dimensions as to make the bay of this length and breadth, with twenty feet posts and ten feet basement, about seventy tons could be stored away in a bay reaching from basement to peak. Two such bays would be hardly sufficient to hold the products of the 160 acres. Such a building is much larger than is usually allowed, and yet without it there must be a large waste, as every farmer is aware who stacks his hay out; or a large expenditure of labor in pitching and re-pitching sheaves of grain in thrashing. Besides this space there must be ample room for thrashing floor and granaries, and for the shelter of domestic animals. To determine the space required for granaries, estimate all the sown grain, including wheat, oats, &c., at 30 bushels per acre as an average, which would be about 1000 bushels of grain besides the corn. Every farmer who expects to choose his own time for marketing, should therefore have about this amount of space, which would be equal to a range of bins 5 feet high, 5 feet wide, and fifty feet long; this would occupy an apartment about 15 by 25 feet, the bins being on each side of a 5 feet alley. In all three story barns where the grain is let into the bins from the fanning mill above, (as described in the REGISTER for 1862,) they may be higher than five feet, or run up to the floor above, which would reduce the required size of the apartment.

In estimating the space required for domestic animals, including feeding alleys, &c., a horse should have 75 square feet; a cow 45 feet, and each sheep about 10 square feet. It will, therefore, require the entire basement of a barn 50 by 100 feet, to stable 50 cattle, and afford proper shelter for 270 sheep; or adopting the rule of some good farmers, that there should be one sheep for each acre, or 160 for this farm, 900 feet would be left for bay room, or for stabling 12 horses.

We do not undertake here to furnish plans, but merely to show that a single barn, large enough to accommodate the farm here described, could not be less than 50 by 100 feet, when constructed in the three story form, as shown in the accompanying figure, and minutely described in the REGISTER for 1862. The cost of such a barn, according to the rule of allowing two square feet of area for each dollar of cost, could not be less than $2,500, although in some localities it could be erected for $1,800.

There are several other out-buildings that we can merely enumerate on the present occasion; such as corn crib, costing about $200; carriage-house and horse-barn $400; piggery $200; poultry-house and yard $100; smoke-house and ice-house $100, and last and not to be forgotten, dwelling-house and dairy-room, not less than $1500, for such a farm as this. All these improvements would, therefore, amount to the following sum:—

Fences,	$1,280
Barn,	2,500
Corn crib,	200
Carriage-house and horse-barn,	400
Piggery,	200
Poultry-house and yard,	100
Smoke-house and ice-house,	100
Dwelling-house,	1,500
	$6,280

This is equal to $31 per acre for the whole 200. We have already shown how some $500 may be temporarily saved by omitting the erection of fences—on the assumption that the first of all improvements must be erection of sub-divisions before crops can be raised to meet other expenses. The buildings will be most economical if completed at once. The barn especially, should form one entire whole, in order to save labor in attending domestic animals, transferring hay and grain, threshing, winnowing and filling granaries. When every convenience of this

kind is provided, it will save the labor of at least one man required for the same work in detached or awkwardly arranged buildings.

It will be observed that these estimates do not include a circulating capital immediately required for stocking and carrying on the farm—such as for procuring domestic animals, implements, seeds, manure and labor; and which a careful summing up would show to be $3,000 at least for these 160 acres.

Our object in making these different estimates is to show young farmers that they commonly much underrate the capital required for the most profitable and lucrative mode of conducting this business. The consequence is they begin with only half the means they should have at command; and everything is, therefore, conducted imperfectly and at great disadvantage for many years afterwards. It will be found on examination that with scarcely an exception those farmers who make the largest net profits are those who not only raise large crops, but those who provide every convenience for feeding and sheltering their animals, and for storing safely all their products. If this subject were well understood, young farmers would not so frequently run heavily into debt for the purpose of extending their acres, without adequate means to cultivate and manage them to the best advantage.

SAVING SEEDS.

Every farmer should save his own garden seeds. The cost of a new stock every spring from the seedsman is no small item of expense. After once securing good kinds and growing from them in a careful manner, he is sure of having good and reliable seeds, and many varieties of vegetables may be improved by judicious management. But without special care the tendency is to deteriorate, particularly in the hands of unskilled growers. Deterioration arises from two causes, viz., in growing from inferior specimens; and in growing two or more varieties of the same species so near each other as to result in cross or promiscuous fertilization. Many persons who pretend to save their own seeds often gather the refuse at the end of the season, after having gathered all the best for family consumption, such, particularly, as peas, beans, &c. The consequence is, the succeeding crops raised from such seeds are late and of inferior quality. None but the best and earliest products should be saved for seed, and none picked for family use from that portion allotted for seed; always selecting the largest and fairest specimens for planting. In observing this rule, almost every variety of vegetable may be improved in quality and product. For instance, in practicing upon this principle, for a period of twenty years with Lima beans, in saving for seed only such pods as contained the greatest number of beans, we increased the product at least one third. Besides the importance of commencing only with the best kinds and continuing to save only the best specimens for seed, it is also a matter of the first importance that no two varieties of the same family be permitted to go to seed near each other, for they are sure to *mix*, and the product almost always proves of an inferior quality. Degeneration is very strikingly apparent from this cause among such vegetables as cabbages, turnips, beets, radishes, and particularly among the vine tribe, such as squashes, melons, cucumbers, &c.

After vegetables have thus degenerated, it leads to the common idea that they have "*run out.*" There need be no running out, but on the contrary many varieties may be improved by careful and judicious management. Most plants are fertilized through the agency of bees and other winged insects, and the winds, and it is almost impossible to grow two or more varieties of the same species in the same garden of ordinary size, without liability to admixture or cross-fertilization. The vine family, such as cucumbers, squashes, &c., belong to that class of plants known botanically as *monœcious*, that is, having two kinds of blossoms on the same plant, one possessing the stamens and the other the pistils only. These are probably almost always dependent upon the agency of insects to transport the pollen from one to the other to render them fertile, and when two or more varieties are planted, even at a very considerable distance apart, it is impossible to avoid crossing the varieties. Indian corn, though belonging to the same class of plants named above, produces its pollen, in great profusion, upon the top of the stalk, and being so extremely light and fine it is wafted by the winds to a great distance, and thus produces *mixture*. To avoid this in garden vegetables generally, no two varieties of the same species should be permitted to go to seed in any garden of ordinary size. Professional seedsmen manage to raise different varieties of the same seed in different fields, as widely separated as possible. By thus observing these simple rules farmers may keep up a supply of seeds in a pure state. One variety of the same family may be permitted to go to seed this year and another the next. Most varieties of seeds retain their vitality for two or more years.

EVERGREEN SCREENS.

The rapidity with which these may be formed, when planted of fast growing kinds and kept well cultivated, would surprise some who had never witnessed such results. We lately saw a screen of the Norway Spruce on the grounds of Ellwanger & Barry of Rochester, which formed a beautiful dense wall of verdure ten feet high, and which had been planted only six years. It had, of course, like everything else on their grounds, received good management and good cultivation. The poor success which we sometimes witness and often hear complaints of, is always owing to the neglect which the young trees received.

TO PROLONG FLOWERING.

In order to prolong the flowering season in perpetual and other roses, and in annual and perennial plants, clip off with a pair of scissors the seed-vessels, as soon as the petals fall. This prevents the exhaustion of the plant in the forming of seed, continues its vigor, and preserves a neater appearance of the whole plant. At the same time the use of the scissors will enable the gardener to impart a symmetrical form to the plants.

CULTIVATION OF FRUIT TREES.

The most practicable way to keep fruit trees growing, is simply to put a quantity of the damaged worthless straw of the barnyard around each one every year, sufficient to keep the weeds and grass from growing. This is much easier than cultivating them, and I find by experience they will grow from one to two feet a year, even though the land around them is in grass or grain. I have no trouble with mice, by taking the straw from the trunk in the fall, and placing a small mound of dirt around them.

Seneca Co., N. Y. HENRY VOORHEES.

The Composition and Analysis of Soils.

As you invite the readers of the Co. GENT. to ask questions through its columns, I will ask you or some of your correspondents to give me some information about Chemistry? How are soils analysed so as to know what they require, to produce the greatest results? In walking through a wheat field I find once in a while a bunch as large around as a bushel basket, which is of a ranker growth and darker color than that around it, and also in other kinds of grain, grass and corn. There is something that the plants like and I wish to know what it is. There is a how, and I wish to know what it is. I bought a book, but it didn't contain what I wanted to know. Books generally contain one man's ideas. If I could have some practical information from practical farmers or professors of chemistry, it would be just what I want. Is there any apparatus or what, that they analyze with? In a court of law, if a factory company damages a farmer's land by the running water containing dye-stuff, copper, or any other substance injurious to vegetation, they have the soil analyzed and find that it contains so much per cent. of one thing, so much of another, and so on. Farmers and others please write and throw all the light you can on the subject. Don't give it up after one reply, but all contribute a little, if no more. D. D.

To analyse a soil with sufficient accuracy to render the analysis of any value, requires a chemical education, and considerable apparatus, just as a physician needs an education for his profession, and a large variety of drugs from which his medicines may be compounded. And the great difficulty, after a proper analysis is made, is this—that so many influences, the effect of which the chemist cannot estimate, arise, in farm cultivation, to increase or diminish the fertility of the soil. Thus, when its mechanical texture is just right, when the presence of moisture is regulated by good natural or artificial drainage, and when proper attention turns the whole productive power of the soil to the crop upon it, instead of giving a large area to weeds, a very small per centage of those ingredients most sought for by the plant, will go much farther than an equal or considerably larger per centage of the same elements under contrary conditions. There may be some points that the chemist can prove by analysis, such as the cases of poisonous materials, if added in large quantities; but as a general rule, analysis of the soil is now discarded almost wholly as a practical guide in farming. It is of very great importance in scientific investigations; but even in such plain matters as endeavoring to decide whether a soil requires liming or not, by testing the quantity of lime it contains, we fancy the money an analysis would cost, will go much farther and decide much more satisfactorily, if expended in experimenting with the lime itself.

The truth is that all soils, with possibly very rare exceptions, contain enough of the ingredients of the crops we cultivate, so far as mere *quantity* is concerned, to produce these crops year after year to an almost unlimited extent. The difference in soils arises, therefore, from the different degrees of availability in which their constituents are present, rather than in the relative quantities. When a soil is said to be "exhausted," we by no means imply that the food of plants is no longer present, but that it is not present in such a way that the plant can readily get at it. Thus a fallow for one or more years may add greatly to the productiveness of a field, while nothing has really been added in its composition, and analyses before and after the fallow, would be just alike. So, also, in the often quoted Lois Weedon experiments, it is shown that spade tillage will enable wheat to be grown with heavy productiveness, without manure, for a succession of years; for the reason that the repeated working of the land, by thoroughly pulverizing it and opening it to influences of air and rain, appears to prepare the ingredients required by the plant more thoroughly for its use, and to render a sufficient supply constantly available, which in ordinary field-culture its roots could not get at. Tillage is thus *manure*, in accordance with the derivation of the word, which means to "work by hand;" but we find other and cheaper manures in the contents of our barn-yards, and in such other materials as lime, gypsum, ashes, salt, &c.—the effect of the application of all which, is probably quite as much in rendering elements already present, more quickly and abundantly available to the plant, as it is in the actual amount of what we put upon the field.

The spots marked in our correspondent's fields by ranker growth, probably coincide very nearly with the points at which manure heaps have lain, or with some other incidental cause of greater fertility. We doubt if analysis would throw much light upon them; they should lead him to endeavor to render the whole field equally good, by liberal manuring and draining where requisite. Experiments should be tried, as opportunity affords, with lime or other materials, and those that are found to produce a good effect in proportion to their cost, should be used accordingly.

"Fancy Farming"---Benefit of Example.

"Allow me to suggest," writes an old subscriber of ours, in a private letter, "that, in giving particulars of different farm establishments, it would add much to the interest of the narrative, if it was demonstrated, which, *if any*, was managed at a profit to the owner? There is a large amount of *fancy farming* in our country, and it is well represented in our agricultural papers, and, in so far as the land is made more productive, it and they 'do the State some service;' but, just in proportion as an individual is induced to copy it, it is a disadvantage to him, and hardly worth paying to learn. Some of us old blunderers, who for more than fifty years of practical coaxing, have got Mother Earth at last not only to give two additional blades of grass but *ten*, must be excused if we bite our lips for many whose wisdom is not seen in print."

— It is the experience of the farmers who have "tickled dame Nature," to quote Sydney Smith's expression, until she has smiled into more abundant fertility, that we are most eager to obtain; and whether they are kind enough to give us the benefit of it in writing, or to invite us to inspect its results in person, and do the writing ourselves, it is *their* "wisdom" that we want to get at, and that we want to put in print for the benefit of others. It is not always easy to ask a man to lay before you a complete financial exhibit of his position in farming, and permit you to publish it to the world,—but even at this difficulty we have not always recoiled. And we had a fancy that when we wrote of the farming we have seen, a reader could determine, without great difficulty, to which class it belonged—or perhaps, to which class *we thought* it belonged—that of those gentlemen who improve a piece of land in order to furnish themselves with the many luxuries of a country home and the pleasure of doing good in that way—or to those whose lives are devoted to the pursuit of farming, as the merchant's is to the pursuit of commerce, as a real business, in which means and hopes are all invested. If the distinction has not always been in-

dicated quite as clearly as our correspondent would have liked, may it not be for the reason that it does not always exist quite so plainly as one is at first likely to suppose?

Let us see. We have in our mind two cases, but shall mention no names.

One of them is that of a man now beyond the threescore years of the Psalmist. He is one who had reached his legal majority and gone beyond it, before property of any kind was more than a dream before him. But Providence has endowed him with indomitable perseverance and industry; with shrewd common sense; with an aptitude at looking farther about him than others, and with a thirst for knowledge as to what he is about in the present, that shall shed new light upon what he is to do in the future. He has taken a farm on credit, and not only owes the money that it costs him, but it is a farm that only immense labor and patience and skill can subdue, and coax into the reduplication of grass blades and ears of wheat. Nevertheless he sets about the task in earnest. He rises early, and eats the bread of frugality and toil. The money that diminishes his debt is *earned*, and that earnestly. But what he earns, and more that he borrows, he invests as rapidly as his means will permit, in *draining* and *liming* his land. More than this, naturally and by experience, he attains a good degree of judgment in selecting animals that it will pay him to feed for the market, and they become his servants in adding to the fertility of his fields; for he buys them as manure-makers, and sells them at a pecuniary profit, which is second, in his own mind, to that other profit they have left behind them in the barn-yard. The dollars and cents, and labor, which his improvements have cost him, have been distributed over many weary years; they have all been derived from the land itself, together with enough more to surround the evening of his life with the comforts of competence, if not with the luxuries of inordinate wealth. He has, by writing, shared his experience with his brother farmers, and his "wisdom has been seen in print" at the bidding of many other pens than his own. There is certainly not a taint of the suspicion of "fancy farming" about him or anything that is his.

The second case to which we referred, is that of a man not very differently endowed in mental characteristics, whom the fortune of birth had carried into mercantile affairs. Amidst the greater hazards that surround him, he has reached middle life with the prize of affluence in his hands, instead of the blanks of disappointment and failure. He buys a farm, different in many respects from that which the other has so long been working into productiveness—in some possessing greater advantages, in others possibly still more difficult to improve. But he has ample capital; and what thirty years, with their slow gains and careful economies, have placed within the reach of the other, he has been able to obtain in a single season, or in a series of two or three successive crops. He takes land that at a hundred dollars per acre, which its chance situation will enable it to command, pays neither interest nor taxes—on which the farmer who has no capital, or who will not live sparingly and labor early and late to accumulate capital, will only grow poorer and poorer, like the land itself, till the end of the rope is reached. By spending another hundred dollars per acre in similar improvements to those already mentioned—in draining, in fertilizers and so on—each acre is made to pay its way and to return the 7 per cent. over, which the law allows. Time is money, when it is saved. There is no way of counting the actual cost which is expended in the long years of the first instance; in the second case, everything is down in black and white, and this cost looks large: but it is only a condensation into thirty or forty months, of what has before taken as many years; and it is an investment that begins to pay, the sooner and the more carefully and more completely it is made.

Now shall we say that the latter is a "fancy farmer," whose example it is rather dangerous than otherwise to induce others to copy? Wait and see. *Exitus acta probat.* Both these cases are perhaps strongly marked of their kind, but the latter not more so than the former. And the former has been doing its good work for a score or more of years, in inciting to better farming, not in one little neighborhood, but, thanks to the circulation of the agricultural papers, in every State, loyal or rebel, throughout the country. Will the latter example have no similar effect? It is not for us to say what may be its influence upon those who read about it, and about other not very dissimilar cases, in these columns. But this we must affirm; that, if it does not by degrees awaken from their apathy the farmers in its own vicinity,—if it does not prompt them to greater judgment and enterprise in conducting their affairs,—if more farm machinery, and draining tile, and fertilizers are not bought,—if more manure is not made and saved at home,—then we shall lower the estimate we have hitherto entertained of the 'cuteness of the Yankee nation. We never met a farmer who would not like one, or nine, more blades of grass than he now has—we have met a great many who watch very closely all proceedings that will tend to bring them. We are not the apologists of "fancy farming," but, to end as we began, we want the blades of grass, and the experience of those who are making them sprout up; and whether the process is one of years and labor, or of capital and energy, we want to get at it, and hold it before our readers, and set them to doing it—better and cheaper if possible, than any of their predecessors. In a word, it is *good farming*, and not poor—farming that don't run to bogs and weeds—farming that pays for labor, interest and war taxes, (if *they* are not too high,) that ought to be and that we seek to have, "well represented in our agricultural papers."

☞ The Toronto Globe contains a report of the Annual Reaping Match of the County of Durham, C. W., Agricultural Society, held in Darlington, July 24th, in the presence of 250 or 300 spectators from almost every section of Durham and Ontario counties. Eight machines, in all, were entered, two of them self rakers, and the rest hand-rakers. The judges decided on the first prize to Joseph Hall, Oshawa, for the Brinkerhoff Self-Raking Reaper, which showed superiority of execution in its delivery of the gavels of grain, with the butt ends toward the standing grain, and entirely out of the way of the horses' feet on next round. The other prizes were:

Second prize to H. A. Massey, Newcastle, for Wood's Self-Raking Reaper.
Third prize to Joseph Hall, Oshawa, for the Ohio Combined Reaper and Mower.

☞ Mr. Wm. Duane Wilson, Secretary of the Iowa Agricultural College, thinks the Wheat crop of that State "this year will be fully one-third larger" than in 1862. The wool crop of the State will be from 1,500,000 to 2,000,000 pounds. Mr. Wilson's opportunities of forming an estimate are very good.

How to Cure Indian Corn for Fodder.

Eds. Co. Gent.—Having received several letters making inquiries in regard to my method of curing corn fodder, I thought, as the inquiries came from readers of your valuable paper, I would give you my method for publication.

In order to have the fodder good, the corn should be cut up while it is yet green—that is, before the leaves and stalks begin to dry up. Any time after the corn becomes hard (or glazed) the corn may be cut without injury to the grain.

I make a stanchion for the shock by tying the tops of four hills together, thus ✕—then the fodder should be set up in the angles as nearly perpendicular as possible. After setting up six or eight hills, the tops should be tied together with a wisp of grass or stalk; this makes a firm beginning for a shock. The shock should contain at least 144 hills, as the larger it is the less proportionately it will be exposed to the weather. Bear in mind that the stalks should be set up as nearly perpendicular as possible. Lastly the shock should be well tied at the top with a band of rye straw.

Corn put up in this manner will not fall down before husking time. I usually husk my corn in from for to six weeks after cutting it up. When the corn is husked, the fodder should be tied with straw in convenient sized bundles for pitching, and it is better to put the stalks from two shocks into one, and tie the tops as before; then, if the weather is dry, it may be hauled at any time and put in *stacks* convenient to barn. There is no safety in putting it in the mow, however dry it may appear, for the pith in the butt of the stalk is a great absorbent, and as long as the stalks stand on the ground it will retain moisture enough to spoil the stalks if put into a mow, but when they are stacked up so that the butts come to the sun and air the stalks will not spoil.

I make my stacks in the following manner, so that we can always haul in an entire stack at a time:—Take a pole, from 4 to 6 inches thick and from 15 to 18 feet long, and set it firmly in the ground; then build the stack around it, laying the tops in against the pole and the buts out, keeping the middle full as in other stacks. At the top I make a cap of a bundle of stalks.

Corn that is sown for fodder should be treated as nearly in the same manner as possible, and you will have good sweet food for your cattle, which they will need no coaxing to eat.

Your motto, in preparing corn fodder for stock, from first to last, must be—"whatever is worth doing at all, is worth doing well." It is no wonder that cattle should refuse to eat stalks, that have stood where they grew till the winds and frosts of autumn have bleached and dried out every particle of nutriment—then cut and thrown in heaps, (they do not deserve the name of stacks,) where they are completely soaked by the rain; then after being husked, thrown into mows or large stacks, where they heat and mould, and only come before the cattle when half are rotten, and the other half tainted with the fumes of that which is fit only for the manure yard.

There is a very great waste for want of care, in the curing of this crop. This year, especially, owing to the drouth and consequent short crop of hay, cornstalks should be secured with great care, and fed in the most economical way. Ira M. Allen. *Stark Co., Ohio, July* 25.

Good Advice.—Somebody recommends that farmers adorn their homes before they become wealthy, if they ever intend to do it. Beautify with whitewash, hop vines and *healthy children;* afterwards with paint and greenhouses, and statuary and fountains.

ABSORPTIVE POWER OF SOILS.

Editors of Country Gentleman—The article from Prof. Johnson, in your issue of 9th inst., (page 26,) is very valuable. A knowledge of the absorbing properties of different soils, is of the most vital interest to the agriculturist. Some few years ago my attention was called to some observations in nature's great laboratory, upon water of showers. I have my plowing done in lands about twenty-one feet in width, and left with distinct dead furrows, for the crops.

On the North River flats we have quite a variety of soils, from the humus to the coarse gravel, with more or less clay. After a smart shower of some thirty minutes, I went to examine a corn-field, and found on the coarsest gravel the dead furrows were filled with water, while on the fine black mould, and a more compact soil, there was no appearance of water, none having run into the dead furrow. This was the first time my mind was called to the fact that such soils absorbed the whole water of the shower, and that soil stood the drouth best, and it is needless to say was altogether the most productive.

On a plowed field of clay ground, after a shower the land will look perfectly dry, because the water is all absorbed, while on a sandy field it will appear quite wet; yet the water percolates fast through the sand, and not at all through the clay. We have only to put a lump of dry clay into a pan of water, to see the quantity absorbed; and burned clay will absorb the more, because it is made more porous by burning, and thereby exposes a greater surface—so by pulverization it is made to absorb more. Again, we see also the difference between land plowed deep and that shallow stirred. Contrast the plowed field with the highway where the dust, before the shower, was two or three inches deep; after the shower the highway will be all slush, while the plowed field by the side will hardly appear wet.

Much, in farming, depends on pulverization. By pulverization I do not mean stirring with the plow, drag, &c., for that does not reduce the particles of the soil. I know of but two effective agents for that purpose—the frost and fermentation by fresh manures. The frost will reduce the lime and clay gravel, and pulverize the earth. Hard freezing will improve the land although it may injure the winter crop. Then by applying fresh or coarse manure, and plowing the same deep under, make the cornfield the compost bed; stir it during the summer on the surface, but by no means mix it up with the manure for the first year. The gas arising will make the land mellow and porous if not pulverized, so that it will remain an absorbing soil for many years, and stand the drouth well. I have found the decided effect the eighth year.

Whether the growth of vegetation depends more upon absorption or evaporation, is not easily answered; yet no doubt a free friendly commerce between the earth and atmosphere is generally useful, although, at certain times, a prohibitory duty by way of mulching may benefit the plants. Z. A. Leland.

The Erie County Fair is to be held Sept. 16–18. The Wyoming County Fair is appointed for Sept. 22, 23. The Jefferson County Horticultural Association have a Summer Exhibition at Watertown, July 6–11. The Brookfield, Madison County, Town Union Society have their Show this year at Clockville, Sept. 22–24. The Hartford, Connecticut, Horse Association are to have an exhibition at that city Sept. 8–10.

GRUB IN THE HEAD OF SHEEP.

MESSRS. EDITORS—In the July No. of the Genesse Farmer is an article on Grub in the head of sheep, by Dr. Dadd, in which he says "the only way to prevent grub in the head of sheep, is to put plenty of grub into the stomach of the animal, and that it is a well known fact, that sheep properly attended to, well fed and housed, are never troubled with the parasite known as the grub."

This may, in a measure, be true; but my experience and observation lead me to believe that grub in the head is frequently the cause of disease that terminates the life of the sheep.

Parasites are met with in nearly all parts of the body, not only in the internal organs, but on the external parts; and whether they occupy one part or the other, they are productive of more or less mischief, according to their numbers. It is not to be presumed that two or three worms in the head, or a few ticks on the body, or a dozen flukes in the liver would cause any immediately serious trouble, but what could be overbalanced by judicious care and good feeding.

But a dozen large grubs in the head, or a thousand ticks on the body, or seven or eight hundred flukes in the liver, if they did not kill the sheep outright, might cause disease which good feeding and proper care could not eradicate.

My sheep are well fed and well cared for, and yet they are troubled with the grub in the head, the strong and weak alike—all are endowed with the same instinct to avoid it.

The first cases that I noticed and attributed to grub in the head, were two lambs about ten months old. They came to the barn in the fall in good condition, and were well kept through the winter on good early cut clover. About the middle of March, I noticed their appetite began to fail, and that they seemed to have pain in the head. They continued to eat less and grow weaker until the middle of April, when they died. I examined their heads and found a dozen or more large worms in each, and the cavities much inflamed.

The next was a three year old Merino and South-Down Buck, taken in the same way, with the same symptoms all the way through. His head was examined and found to contain a large number of grubs; it was much swollen and the cavities badly inflamed.

The next was a ewe, eight years old, and with lamb. She died in March last. Her symptoms were the same as the others, only she seemed to have greater pain in the head and occasionally seemed much frightened and would whirl round three or four times. She lived about 3 weeks, the last week eating nothing, lying on her side with her head and nose in an almost perpendicular position, and uttering a groan every time she breathed. I dissected her head and found a dozen large worms and some smaller ones. The large ones were situated in the cells of the ethmoid bone. The parts were badly inflamed, and I came to the conclusion that the disease which killed her was caused by grubs in the head. The sheep was kept on good early cut English hay, with six quarts corn and oats mixed in equal parts, to fifty sheep, with an occasional feed of roots. If she died for want of "grub in the belly," it was not my fault, and the sheep certainly had no disposition to put it there.

I see no reason why œstrus ovis should not persecute healthy sheep as well as the œstrus bovis "healthy oxen by its bites during summer" as Dr. Dadd says in his Diseases of Cattle. He also says the "greater the number of tumors, the more is the strength of the animal diminished by the pain and supuration, and for this reason we should endeavor to free the animal as soon as possible by washing the tumors or forcibly compressing them." Query—why not put "grub into the stomach and 'house' him?"

The Œstrus Ovis, or sheep gad-fly, deposits its eggs in the nose in July or August. They soon hatch and crawl up the cavities of the nose to their future lodgment—sometimes within the fiftieth of an inch to the brain—where they fix themselves to the sides of the cavities, by two hooks protruding from the sides of the mouth. It remains in this position, feeding on the mucus until the next May or June; it then descends from the nose, goes into the ground, forms a chrysalis, and soon changes to the fly, when it is ready to deposit its eggs again and continue its species.

Thus we see that the fly performs his work at a time when the sheep is in the best condition, and housing out of the question. As to housing in winter, farmers in this section would as quick think of going houseless themselves, as of letting their sheep go without good, comfortable barns.

Now, Messrs. Editors, I do not wish to be understood as advocating that all sheep that die, die of grub in the head, or all sheep that eave grub in the head die; but I do believe that fifteen or twenty large worms, distributed in as many cavities through a sheep's head, will produce serious effects, and bring on disease sooner or later. They might cause a pressure on the brain, and inflammation, or coming in contact with some of the nerves which pass through the cubriform plate to the brain. These may become diseased and with disease a loss of appetite.

The animal cannot be induced to take food enough into the stomach to supply the waste of animal matter naturally going on; debility ensues, and the sheep lingers for a while and dies.

I have lost other sheep from other diseases and I generally satisfy myself as to the cause. One died in May last. On examination I found a tumor in the pylorus or orifice that connects the large with the small intestines, which completely filled the passage; but no grubs were found in the head. I think if farmers would examine their animals when they die, they might gain much information, and satisfy themselves as to the disease oftentimes. I consider it useless to doctor ordinary sheep; if they die their pelts bring half as much as the sheep are worth. S. C. PATTEE. *Warner, N. H.*

COWS AND THEIR TREATMENT.

Should a cow be milked before she drops her calf, is a question that was asked not long since in Co. GENT., and answered in another issue that it should be done on no account, no, never. Now I don't presume to be as well posted as some of the correspondents of the Co. GENT., but for the past forty years have had more or less to do with the cow, and from my experience in that time I would not answer this question in the same way this correspondent has answered it. I don't know what objections may be made against milking before, but I think I can remember of a number of instances where I was satisfied at the time it must have been of great benefit to the animal. I will relate one instance. We are now milking a two-year old heifer that dropped her calf since this month came in, which I had milked for two or three weeks previous to her coming in. Her bag seemed much swollen, and as she was gentle, commenced to milk her and continued to do so regularly until she dropped her calf, and have seen no bad effects from it. A. MOSS.

Belvidere, Ill., July 15, 1863.

A WISCONSIN FARMER ON THE GAS TAR QUESTION.—T. P. MEIGS of Waterville, Wisconsin, writes to the COUNTRY GENTLEMAN on this subject as follows:—"Having seen several articles in your paper deprecating the use of "Gas Tar on Seed Corn," I thought I would relate my experience. I planted about twelve acres of the tarred corn, and it all came up within a week. Neither birds or gophers troubled it, while our neighbors had to be "on picket" daily from sunrise to sunset, using up all the ammunition in the place, and still lost from one-tenth to one-half of the corn. One person had fifteen acres nearly all taken by pigeons one morning at sunrise. I soaked my seed-corn twenty-four hours in warm water, and then applied the gas tar."

FINE PULVERIZATION OF MANURE.

There is no part of the management of manure more important than its fine pulverization, in connection with its fine intermixture with the soil, and no part is more imperfectly appreciated and more neglected. It is a common practice to spread manure in lumps, or in unbroken masses of fibrous material, and in this condition to plow it into the soil. It requires but a moment's reflection to perceive that such a coarse conglomerate of large lumps of manure and of large clods of earth, are quite unfit for the fine, delicate, thread-like fibers constituting the rootlets of plants, to extend through in search of nourishment. But let these crude materials be both ground together to a fine powder and properly moistened, and they will at once promote luxuriant growth. The pile of large clods can do nothing towards retaining moisture; but finely pulverized, they become at once as a sponge. Practical farmers have often remarked that the application of manure has served to increase the dryness of the soil in times of drouth, and sometimes even to lessen the amount of the crop. This would not be the case if thorough intermixture had been attended to; but the manure on the contrary, would increase the growth of the crop, both by the additional nourishment afforded, and by the increased retention and supply of moisture.

The importance therefore of finely breaking all the manure applied to the soil, and intermixing it well by repeated harrowings, cannot be too strongly impressed on the mind of every cultivator. Various means may be adopted to reduce manure to a fine condition. If coarse or composed largely of straw it must be rotted, by placing it in large heaps to remain several months, cutting down the outsides with a hay-knife after the lapse of a few weeks, and throwing the trimmings on the top. If there is not enough straw to retain the volatile portions, then thin layers of loam, turf, muck, or peat, must be placed with the manure—thus forming an excellent compost heap,—the amount of loam or other absorbent to be regulated by the quantity of straw which the manure may already contain. If the fresh manure is nearly clear dung, it should have one-half of its own bulk to retain the volatile parts; but this again must vary with the amount of clay it contains—a heavy loam being a better retainer than a light one. A dry material, as loam or peat, is also a much better absorbent than a wet one. All these different things are to be taken into account, and the judgment properly exercised in determining how much of absorbing material is to be placed in mixture with the manure.

Where straw is largely used, it would obviously require much less rotting down if the straw could be run through a straw-cutter and chopped short before used as litter. Cornstalks are especially troublesome when mixed with manure; the straw-cutter therefore becomes particularly useful in chopping them up before spreading them over the yard.

We know a very successful commercial gardener who keeps one of his many hands constantly employed, year in and year out, in mixing and working down fine composts; and the eminent success in all parts of the establishment proves the wisdom of the practice. Farmers cannot, however, especially at these times, mix and break down their compost heaps by hand; they should therefore make them in the form of long and low parallelograms, on which a yoke of oxen may be used for several days in plowing, harrowing, and commingling all the parts until they are nearly as fine as flour. After the manure is spread upon the soil, and before plowing in, great benefit is derived by thorough harrowing with the top soil, thus breaking finely both the manure and the soil, and mixing them well together. Another way for the perfect diffusion of the manure among the particles of earth, is to spread the manure in autumn, so that all the rains of this season may dissolve the soluble portions and carry them down among the particles, where they are absorbed and retained for the growing crop.

In experiments which we have witnessed, where the manure for the corn was thus applied in autumn, it has afforded a yield of about seventy bushels per acre, when the same amount applied in spring gave only fifty bushels. A thin coating of manure applied to winter wheat at the time of sowing, and well harrowed in, has increased the crop from seven to ten bushels per acre—and in addition to this, by the stronger growth it has caused, as well as by the protection it has afforded to the surface, it has not unfrequently saved the crop from partial or total winter-killing.

In cases when it is necessary to apply coarse manure at once, much may be done in lessening the evils of coarseness by artificially grinding it into the soil. The instrument called the drag-roller,—which is like a common roller set stiff, so as not to revolve,—has been used to great advantage for this purpose, by passing it over the surface in connection with the harrow. We have known this treatment to effect a thorough intermixture, and to more than double the crop obtained by common management with coarse manure.

YEARLING MOTHERS.

The early maturity of the Alderney stock has long since ceased to be a matter of curiosity with those familiar with that breed of cattle. The mother of 13 and 14 months is no longer regarded as *precocious*, but looked upon as a common animal, and unworthy of any particular regard. I raised a heifer last season, half Alderney and seven sixteenths Ayrshire, which was one year old on the sixth of May, 1863, and on the 8th,—at one year and two days old—she dropped her calf, which is really a very nice animal. On the 21st of July, I had another come in, at 12 months and 27 days; and by the time these little cows are two years old, I intend they shall become *Grandmothers;* for it has been almost universal with me to have them seeking the males before they were *three months old.*

Some may regard this early breeding as injurious to stock; but I question it, if *milk* is the object.

The earlier we excite the mammary glands, like all other glands or parts of the system, the more fully will they be developed; and the greater the development, the better milkers they will make. It is very true, it may lessen the size; but what of that? Dairymen do not care so much about the size if they get *the milk.* And then these *miniature* mothers are decidedly pleasant little creatures to have around. They are as docile as kittens, and insist on your kindly notice whenever you come into the yard where they are. I shall let the calf take a part of the milk this season, presuming that it will *strip* quite as clean as myself. How much my share will be I cannot say; but as yet, I have succeeded in robbing her of from 6 to 8 quarts a day.

A. J. Sands.

Bainbridge, N. Y., July 30th.

THE HAMBURG EXHIBITION.

PRIZES TO AMERICAN EXHIBITORS.

We have correspondence in several of the daily papers during the past week, from the Hamburg International Exhibition. It has evidently been successful for the intended purpose—to draw a large number of people to that shrewd and enterprising city; and, while the weather was somewhat unpropitious, we have seen nothing to show that the heavy expenses incurred will not be reimbursed by the receipts of the exhibition, thus leaving the large amount of money expended by the hosts of visitors, as so much "clear profit" to the place. That the exhibition was a speculation of this sort, has been evident from the beginning. Accounts of it, both in English and American papers, complain of extortionate charges. But so long as German *purchasers* were sure to be present, it was well enough that American manufacturers and inventors should be represented, and, unless the statements received are somewhat "rose colored," there may be room for regret that more of them were not there, prepared to do a little business with the German and Danish and Russian proprietors.

The following is the list of awards to American exhibitors as far as made public—no official list having yet appeared:

1. C. H. McCormick, of Illinois, for the introduction and perfecting the best reaping and mowing machine, a gold medal.
2. Seymour & Morgan, of New-York, for an improved reaper and mower, a large silver medal.
3. Thompson & Avery, of Pennsylvania, for an improved horse power, with a threshing machine, a silver medal.
4. John Kelsey of Pennsylvania, for an improved harrow and other implements, a large bronze medal.
5. George Campbell of Vermont, for Willard's patent root cutter, a large bronze medal.
6. Whittemore & Belcher of Massachusetts, for an assortment of agricultural machinery, a large bronze medal.
7. John Vanderbilt of New-York, for an assortment of agricultural machinery, a large bronze medal.
8. James A. Saxton of Ohio, for Ball's mower and reaper, a large bronze medal.
9. Solon P. Hubbell of New-York, for an improved broadcast sower, a large bronze medal.
10. John W. Free of Indiana, for a superior fanning mill, a large bronze medal.
11. L. P. Rose of Michigan, for a superior and elegantly finished set of garden implements, a large bronze medal.
12. E. C. Taintor of Massachusetts, for improved machinery for planing, mortising, and tenoning, a large bronze medal.
13. Hale & Spier of Pennsylvania, for an improved new frame plow, a bronze medal.
14. Johnson & Co. of New-York city, for washing and wringing machine, a large bronze medal.
15. Geo. Campbell of Vermont, for Spanish merino sheep, first prize of fifty thalers for the best buck; one prize of twenty-five thalers for the second best buck; one first prize of fifty thalers for the best ewes.
16. H. G. Hotchkiss of New-York, for the two best samples of essential oils, a large bronze medal.
17. Hale Parshall of New York, for a sample of the oil of peppermint, a bronze medal.
18. John H. Redstone of Indiana, for improved lumber and timber sawing machine, a bronze medal.

A model of an improved machine for gathering and pitching hay, an invention of Mr Fowler of New-York, was exhibited to the committee; also a model of an improved hay and cotton press, by Mr. H. A. Schuerman of Louisiana, which would have received medals but for the rule excluding models from the list of premiums.

It is also stated that a premium was awarded on some bouquets of dried grasses and flowers, which were sent over, we believe, together with a collection of grains and seeds, from the Agricultural Rooms in this city, and were the handiwork of Mrs. J. T. VAN NAMEE of Pittstown. They seem to have attracted great attention.

As to the Gold Medal awarded to Mr. McCormick, we find the statement in foreign papers that it was "an honorary distinction conferred on that gentleman as being the introducer of reaping machinery on to the Continent, and not, as some suppose, awarded in connection with the trial of reapers which took place" during the week,—but which seems not to have been very satisfactory to anybody.

The correspondent of the New-York Evening Post has the following remarks on Mr. CAMPBELL'S Sheep prizes:

"Mr. Campbell of Vermont wins premiums for the best ewe and the best two bucks, and in consequence of some dissatisfaction on the part of European exhibitors, Col. Needham, the Vermont Commissioner, proposed a sweepstakes premium of $100, himself to pay $10, Mr. Campbell $10, and each of the dissatisfied German and French exhibitors to pay the same. A jury was then to be selected by the Association, and the sheep to be sheared on the ground, in the presence of the jury, and the sweepstakes to be awarded to the heaviest fleece, allowance being made for the respective weight of body; but the complaining exhibitors declined this proposition, thus practically acknowledging the justice of the decision of the jury in favor of the American sheep."

The correspondent of the Tribune says on the same subject, that "the entry of twelve American sheep was made public through the press of Germany several weeks before the Fair, and it was regarded as a great joke that America should for a moment think of competing with Germany in sheep. But the competition has been eminently successful—and the long faces of the other exhibitors indicate their mortification and disappointment."

At the same time with this Exhibition, an International Congress of Veterinary Surgeons was held in Hamburg. Daily meetings took place, which were attended by from 50 to 100 professors and practitioners from all parts of Europe. Professor Hering of Stuttgardt, was chosen as President; Professor Gamgee, of the New Veterinary College, Edinburgh, the orginator of the congress, was appointed vice-president; and other professors were selected to constitute a committee, and to act as office-bearers of the present and future Congress. Various Governments sent representatives to the congress. Four were sent from Russia, three from Austria, two from Bavaria, two from Prussia, and others from Sweden, Norway, Denmark, Hanover, Saxony, Wurtemberg, Switzerland, &c. The principal subjects discussed were the "Russian plague" or "steppe disease" in cattle and sheep, pleuro-pneumonia in cattle, smallpox in sheep, and the sanitary measures which should be taken on the part of the authorities against the dissemination of these and other contagious diseases.

Lime on Hay and Straw on Bogs.

EDS. CO. GENT.—Many of the readers of your extensively circulated paper may not be aware of the important use of air slacked lime in curing hay. An old farmer, John K. Defreest, who has thus successfully used lime for several years, induced me to try it. About two quarts is thrown broadcast over each load as it is being mowed away. It seems to absorb the moisture, prevents any moulding, and I found last winter that my cattle ate the hay with a greater relish than usual. The horses too seemed to thrive. I take it that the lime dust thus strewed on the fodder helps the making of bone, and thus strengthens the frame of the animal.

I have abandoned the old custom of sprinkling salt on hay as it is being stored away. It *moistens*, whilst lime dries out that excessive moisture from which almost every load gathered thus far this year has suffered.

I take this opportunity of recommending from my own experience the use of straw to effectually destroy bog. As an economy, take the rakings of rye and oat fields, which are of little use after being threshed, and spread them thickly upon bog land. This covering, by excluding the air and sunlight, I found very effectually rotted the tops, which disease in the head was soon imparted to the roots, and in one season I thus obtained easy and undisputed possession of a piece of land which for many years had been under the complete control of bogs, and quite worthless. It is now easily worked and valuable.

DeFreestville, Aug. 1, 1863. D. W. C. DEF.

The Peach Borer.

If tobacco stems can be procured, a few of them put at the base of the tree in the spring will prevent the borer harming the tree. Ashes and hog manure are said to be equally efficient.—*Exchange.*

Such remedies as the above often go the rounds of the papers, and are similar to the attempts to repel the curculio by bad smells, drive away birds with scare crows, and kill wire worms and grubs with a few bushels of salt per acre, amounting when dissolved to a ten thousand part of the soil. One quarter of the time needed for placing and keeping these tobacco stems around the trees, would enable an active man, with the point of a knife, to dig out of the bark, and kill every borer they contain. Repellants for insects are commonly entirely useless; destructives,—such as kill at once, are the only proper remedies.

Protection from the Cut Worm.

We have recently seen a mode for preventing the cut worm from destroying young recently set cabbage plants, consisting of wrapping a piece of stiff paper around the stem when the plant is set out, so as to extend a little above and an inch or two below the surface. We have adopted this mode more than twenty years, although it is now recommended as new, and we can vouch for its entire efficiency. Thick writing paper appears to answer the purpose best, and old letters may be torn up and employed. Stiff wrapping paper and even burdock leaves have answered about as well, the object being merely to place a protection about the stem where the cut worm usually assaults it.

PREPARING SEED CORN.

I have seen several articles in the Co. Gent. describing various applications for protecting seed corn from the depredations of birds and insects, with a supposed object in view to hasten germination and accelerate the growth of the plant. Common tar and gas tar to coat the seed, and various chemicals for a solution or wash, roll in plaster, lime or soot, have been recommended by different persons as a sovereign remedy. Now whatever amount of fertilizing matter may be taken up by the seed by absorption or coated on the outside, will soon be diluted by the moist earth. I have never used any of the above applications to any extent, and have long since come to the conclusion that it was best to plant the dry seed in a careful manner, and let the soil do its office work as best it may.

A brewer in Philadelphia once asked Dr. Franklin how he should prevent the boys from taking his beer in his back yard—replied, set a cask of old Jamaica beside it, and the beer will not be molested. I, instead of putting up all manner of devices to scare the crows off of cornfields, sow corn broadcast over the field just as the young blade is coming up, and renew it if necessary till weeding time, with as little loss as any other way. H. Walker.

FARM CARTS.

Messrs. Editors—I have been using a cart similar to one described by D. D. of Fall river, Mass., in vol. 22, No. 1, page 17, of the Co. Gent., attached to the fore wheels of a four horse wagon, for some time, but which I think is much more simple in its construction than either fig. 1 or fig. 4 of friend D. D.

First, make an axletree similar to a cart axletree in every respect, with eyes to receive the body to fit the hind wheels of your wagon; then cut a young white oak about 5 inches in diameter at the butt, and 6 feet long; rip one end with a hand saw 4 feet back, and open it with a large wedge, (just as you would a common cart tongue,) having first put an iron band around the stick where you stopped sawing (an old hub band answers every purpose) to keep it from splitting any farther; cut a tenon on each end of the fork to fit in the mortice of the cart axletree, flatten the other end so it will work in the front axletree of the wagon in the place of the coupling pole; bore a hole to receive the body bolt; pin a 3 inch pin on the top of the stick, just where the front of the bed rests, in order to raise it so that the front axletree will not strike in turning; put on the cart body, and you have a cart that can be drawn by horses, which you will find very convenient for many purposes, especially in hauling out manure where you put it in piles, as it will dump as readily as any other cart, and similar to the one shown in fig. 1, except the seat in front.

But if you have an ox cart with an old tongue to it, just cut off the tongue to 6 or 6½ feet, flatten and bore the end as described above, and you have a cart without the trouble of changing the wheels every time you want to use it. J. P. S. *Glenville, Md.*

Wind-Gall and how to Cure it.

Messrs. Editors—A gall is a swelling that appears on each side of the back sinew above the fetlock, and injures the sale of many a fine horse. Many people puncture them, which is a wrong thing, as it often produces an incurable lameness. I had a very fine horse, which was injured by the same thing. I tried many remedies which I saw recommended in papers, and never found one that cured him. In fact, found more that injured him than there were that done him good. I at last thought kerosine oil might do good, and so I made the trial. I had not used the oil but a few times, and the gall entirely diminished.

Procure the best kerosine oil possible, and bathe the spot two or three times a day, until you see the gall has diminished. Dip the end of your finger in the oil, and rub it in well. Then put a tight bandage of cloth around the gall. Be careful and not let the oil spread more than necessary, for if allowed to run down in the fetlocks it will cause a bad sore.

If the gall be a bad one, and the oil should cause a sore, heal with Green Ointment, made as follows: Two ounces of beeswax, two ounces of rosin—when that is melted put in half a pound of hogs-lard, and four ounces of turpentine, and to this add one ounce of powdered verdigris—strain through a clean cloth, and it is then fit for use. E. C. K. *Cape Vincent, N. Y.*

National Veterinary Association.

A convention of regularly educated veterinary surgeons was recently held in New-York, for the purpose of adopting such measures as might be deemed expedient in order to elevate their calling to that dignity to which it is entitled, and for the exclusion of quacks and quackery therefrom. During the week the organization was perfected. After adopting a constitution, a ballot for officers was had with the following result: *President*—Dr. J. H Stickney, Mass. *Vice Presidents*—R. H. Curtis, N. Y.; W. Sanders, Mass.; E. Ripley, Maine; W. A. Wisdom, Del.; G. W. Bowler, Ohio; R. Jennings, N. J.; W. T. McCoun, N. Y. *Secretaries*—A. Lieautard, N. Y.; R. Wood, Mass.; I. Mitchiner, Pa.; T. C. Walton, N. Y. *Treasurer*—A. S. Copeman, N. Y. After appointing a Board of Censors to examine candidates desiring admission to the Association, the meeting adjourned.

A New-York versus a Scotch Dairy.

EDS. CO. GENT.—In a recent number of the CO. GENT. you publish, from the North British Agriculturist, a valuable table, exhibiting the results of the dairy operations of Mr. Harrison of Frocester Court, Scotland, for the years named. On reading over this table I turned to the books of my dairy farm at Prattsville, in order to ascertain how much, if at all, Prattsville was behind "Frocester Court" in the business of the dairy, and I give you below the following gratifying result, for the benefit of the North British Agriculturist, and all concerned:

Comparative Yield of Milk from the Dairies of Mr. Harrison, Frocester Court, Scotland, and Z. Pratt, Prattsville, New-York.

Year.	No. of cows.	Dairy of Mr. Harrison,		Dairy of Z. Pratt.		Total difference in galls.	Difference per cow.
		Total in gallons.	Per cow in gallons.	Total in gallons.	Per cow in gallons.		
1857.	55	31,728	577	35,023	636	3,295	59
1858.	52	28,247	447	33,858	651	5,611	204
1859.	60	32,009	533	36,097	601	4,088	68
1860.	66	34,470	522	34,676	525	206	3
1861.	71	38,831	550	40,187	566	1,356	16

So much for the dairies of Scotland and New-York compared. In the number of the CO. GENT. for July 9th, which I have been reading, I find quite an interesting communication from Mr. C. T. Alvord of Wilmington, Vt., on the value of the "Ayrshire Cows for the Dairy," in which the writer proceeds to give valuable statements regarding the quantity of butter yielded by a given quantity of milk of Ayrshire cows, from six different Scotch dairies, the proprietors of which are gentlemen "whose great experience and high respectability are sufficient guarantee for the integrity of these statements." It is unimportant to reproduce Mr. Alvord's table here. I quote only his summing up of the result in his own words, viz:

"This is a little more than 2½ gallons of milk to one pound of butter, as the average of the Ayrshire dairies." And I will add a very gratifying result: but, Messrs. Editors, my dairy farm book shows an equally gratifying result obtained from a large number of the common native breed of cows, now feeding on hills which but a few years ago were covered with a dense hemlock forest. Thus in 1861 my dairy yielded an average of 10 42-100th quarts of milk to one pound of butter; and in 1862, 10 10-100th quarts of milk to one pound of butter.

We are not favored in the communication of Mr. Alvord with the number of Ayrshire cows to each of these Scotch dairies—an important omission, as I think, for it is not impossible that these dairies were stocked with selected cows, cows not altogether unlike those which Mr. Alvord informs us Mr. Prentice of Albany owns. A neighbor of mine has a native cow which has produced over 400 pounds of butter per year, and this without extra feed.

Now my cows are natives to the hills of Greene and Delaware, bought from my neighbors, the farmers of these counties, and they cannot boast of "blood" and careful "bringing up." I have yet to learn that they will not produce as much profit to the dairy farmer as the Ayrshires, or other breeds.

In conclusion let me add that the secret of success in butter making, as in all other business, is good grass and constant attention. Z. PRATT. *Prattsville, July*, 1863.

In connection with the foregoing, and to show the scale on which dairy farming is being conducted the present season on Col. PRATT'S farm at Prattsville, he kindly sends us the following extract from the local paper:

One Day's Work on a Dairy Farm.

Thinking it might interest our readers to know what amount of work may be accomplished on a large dairy farm, where everything is systematized, in a single day, we have obtained from Col. Pratt's farmer, Capt. Newcomb, the following account of labor performed with accompanying results, on his dairy farm, (which produces 20,000 pounds of butter yearly,) on the 1st day of July. The persons employed consist of three men, three women and three boys, who rise at 4½ o'clock A. M. The day's work for the men and boys commences, 1st, by driving in from pasture *ninety* cows, and putting them in the stable ready to milk. 2d. Feeding and watering horses, bulls, calves, 49 hogs, 130 turkeys and 120 chickens.

Milking cows begins at 6 o'clock and finishes at 7½ o'clock. The cows are then let out to pasture, the stables cleaned, and everything ready for field work at 8½ o'clock, when the weeding of the carrots and hoeing of corn and potatoes commences. Between 11 A. M. and 2 P. M. three swarms of bees (50 hives) have been hived. Dinner at 12 M.; after dinner the horses, &c., are fed and watered, and all is ready for field work at 1½ o'clock. At 4 o'clock start for the cows, and at 5 o'clock they are all stabled, ready for milking. Supper at 5 o'clock, and at 5½ milking commences—milking finished—sixty pails full are carried to the dairy. At 7 o'clock the cows are let out of the yard and driven to their night pasture. The stables are then cleared, the horses, bulls, calves, hogs and poultry fed, and firkins opened.

We have so far given an account of the men's work done, we now proceed to the female management of the dairy: Three women are employed, two in the dairy room and one at housework. The day's work begins by the two skimming milk, while the third prepares the breakfast for 5½ o'clock. Milking begins at 6 o'clock, and is finished and the milk carried in by 7½ o'clock. The milk obtained this morning was 631 quarts, equal in weight to 1,228 pounds. When the milk is brought into the milk room it is strained into large cans, then dipped by the two women and the two boys, and put into pans and placed upon the milk racks, and while the milk pails, cans and strainers are being washed, the churns well filled with cream, two in number, each the size of a barrel, and worked by water power, are set to work. The number of pans of milk skimmed this day is 509. Near to the churns, and in the churn room, is a wooden tunnel, in the bottom of which is a trough leading under ground to the hog pen, and as fast as the pans are skimmed the refuse milk is emptied into this tunnel, and by the trough conveyed to a milk reservoir in the hog pen, from which the hogs are fed as required. The cream skimmed from these 509 pans of milk made 123 pounds of butter. The newly made butter is now salted, the milk house scrubbed, the pans and churns washed and carried out to the air and sun to dry.

Next in order is the working and packing of the butter churned the day previous. Hot water is now put in the firkin last opened, and brine is changed from one firkin to the other, and the empty firkin rubbed with fine salt and got ready to receive the packed butter. It is now 5 o'clock in the afternoon, and all hands go to supper, and at 5½ o'clock the milking commences, and by 7 o'clock has been carried to the milk room. Then follows the dipping and putting into pans, and placing the pans on the rack, as before stated, and this by the washing of the pails and strainers, and at 8 o'clock the work of the day is done. This day, (July 1st,) from 90 cows, 111 pounds of butter were made.

Introducing Italian Queens to the Native Stock.

Mr. Aspinwall gave us near the end of last season, a new method of introducing queens, which has proved so satisfactory in the few trials that I have given it, that I think it safe to recommend for further trial at least. It is so little trouble in comparison with caging the queen in wire cloth and having her and the bees become acquainted through it before allowing them together, that it should be known. The colony to receive her should be prepared the same as if she was to be introduced the old way. With this method I take away the native queen, and at the end of the week, take out and look over the combs, destroying all queen cells. Then completely besmear the queen in honey and drop her among the bees. They immediately commence licking the honey, and seem to forget all about stinging her M. QUINBY

RELIEVING CHOKED CATTLE.

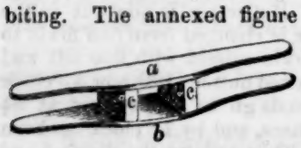
As the season is approaching when cattle often become choked by picking up fallen apples, or by being improperly fed with whole potatoes, we copy the following remarks by a correspondent of the Boston Cultivator. Apples are the most dangerous on account of their smooth skin, which causes them to slip down the throat:

"There are several ways used for relief, among which are, forcing the substance down with a stick, firing a gun under the belly, holding up one leg while the animal attempts to walk, crushing the offending substance by two mallets, &c.

"But are they sure and ready means of relief? A writer on the subject thinks not. I once saw a fine cow relieved at night by the first method, which died before morning, the stick having passed through the gullet. I have seen the fourth method work well in crushing apples, but should think potatoes too hard. The other methods I have not proved, but will give one that I have proved, having relieved several within a few years, and two last fall. It is easy, safe and sure, not requiring more than two minutes.

"Tie up the animal with its nose inclined upward, either by a rope around the horns and head, or by two strong men holding it. Let a strong man with his thumb and fingers placed below the substance in the gullet, force it upward to the mouth as far as possible, keeping the grasp, and pressing the wind-pipe at the same time, causing a cough, by which the apple or other article is thrown into the mouth. This I have not known to fail."

We have never tried the method recommended by the above writer—perhaps it might succeed well when the large substance is near the upper part of the throat. But we have used another mode which has never failed. It is extremely hazardous at best to attempt to ram the substance down the throat, unless it has already passed far down and a soft and flexible rod is at hand. Uusing a stick or whip handle for this purpose, commonly tears or penetrates the gullet and proves fatal. Crushing the apple or potato by striking outside, is certain death unless it be extremely soft—as it always incurably bruises the throat. The method we have adopted in all cases with success, is to extract the substance by running the arm down the throat and seizing it with the fingers. For this purpose the jaws must be held firmly wide open, to prevent all danger of biting. The annexed figure represents a simple instrument used for this purpose, which may be made in a few minutes, and should be always kept on hand by those who are not vigilant in excluding whole apples or potatoes from their animals. It consists of a strip of board made of hard wood, *a*, about two feet long and three inches wide, shaved or rounded at the ends so as to form handles. Two wooden blocks, *c*, *c*, are placed between this board and a similar board, *b*, so as to leave a hole or space just large enough for the hand and arm to pass through. These boards should be firmly nailed to the blocks. In using it a mam stands on each side of the animal, and holds the horns, while the mouth is crowded open and the instrument held firmly by the handles. A third person, after removing his coat and rolling up his sleeves, thrusts his arm nearly full length down the throat and removes the obstruction. An active half grown boy, whose hand is smaller than that of a man's, usually succeeds best. The whole may be done in less than a minute's time—the writer has often performed this task without any inconvenience.



Trunnel and other Rail Fences.

Eds. Co. Gent.—I notice in your issue of July 2d, a description of what we call a trunnel fence, and how to make it, by a Maryland Farmer. Being somewhat acquainted with that kind of fence, having had it on my farm to some extent for fifteen years, the fence being built by my father, where we could not make the ordinary worm fence with long rails, for one reason, and as another reason, because he could work more timber into rails out of tree, by making a short rail of six feet where he could not get a length of twelve feet long. We always make our rails twelve feet long. I am of the opinion of the writer, that it is a very good fence. But as I have adopted another mode of making fence with rails, which I think preferable to that style of fence, I will give it to you, as I have seen none in any other section of country.

I stake out my fence as for a board fence, and set posts 2 feet in the ground, just 11 feet apart. I then take a stake split for the purpose, smaller than the trunnels, and sharpened at one end, and drive it into the ground opposite the post already set. My posts are four and a half feet high, which is intended to be the height of the fence. Then I split blocks about 4 inches thick and 8 inches wide, and put them edgeways between the stake and post. a wire is next put around the post and stake, just at the top of this block, and twisted together; and another wire around the top of the post and stake, in the same manner as at the bottom. Then to put in the rails, I take an axe and hew them so as to fit between the post and stake, if the ends are too large. It will be understood that the ends of the rails rest upon one another, between the post and stake, in the same way as they would in a trunnel fence—the distances between the posts making them *lap* about six inches.

This saves a great many rails—three lengths making as much as four will in the zigzag or worm fence, and five good rails will make a fence 4½ feet high. This is nearly or quite as high as a seven rail fence put up in the usual way, and it will stand the wind better than a worm fence; cattle cannot throw it down, and it takes very little more ground than a board fence, and is a great deal better for a farm fence. The wire at the bottom prevents the stake from moving out of the way and letting the rails fall when the stake rots off, and yet the fence is just as good and firm as though the stake was in the ground, and the stake will last as long as the post. The timber used for the trunnels in the trunnel fence, will make the posts in this kind of fence, as they will be only 6½ to 7 feet long, according to the height of the fence desired to be built.

Kendala, N. Y., July, 1863. ANONYMOUS.

A HOG TAMER.

A few days since we were shown an instrument invented by Reuben Hurd of Whiteside county, in this state, (who has secured the patent right for the same,) called the "American Hog Tamer." From a personal examination, we are satisfied that it is a thing of considerable practicable utility to every farmer, especially to those who keep their hogs during the summer months in clover pastures or orchards, as one application of Mr. Hurd's Tamer will entirely and forever afterwards cure the patient of any disposition to root or throw fences or gates, and at the same time produce a subdued state, and as a result increases the fattening propensities. Such at any rate is the experience of all who have used them among our acquaintance. Mr. Hurd should certainly have credit fo turning his inventive genius in this direction. Illinois.

Canning Peas and Different Fruits.

I notice in the Co. GENT. of 9th inst., a request for information in relation to canning peas, also *the different kinds of fruit*. We have had no experience with peas, but having been successful for three or four years with the different kinds of fruit, give "our method."

We have a decided preference for *glass* jars over any kind of metal cans, or even earthen; the condition of the fruit can be seen at all times and kind; besides, there is not the danger of poisonous substances forming from contact with the acid in fruit. A jar with a jog in the neck, like the Yeomans' Fruit Bottle, to prevent the cork from pressing inward is very desirable, if corks are used. There are some very good self-sealing jars, but they are much more expensive; and are considered somewhat more convenient by many. A cheap and sufficiently good sealing wax is made by melting an ounce of tallow with 1 pound of rosin.

Different persons will use different quantities of sugar, varying from ¼ to 1 pound of sugar to the pound of fruit. The sugar is not essential for *preserving* the fruit. Mix the desired amount with the fruit and heat slowly to just at the boiling point; then, having previously *heated the bottles gradually*, so as not to break, by immersing them in a pan or some dish of water which may stand on the stove while heating the fruit—fill, *and close immediately*. A tunnel with a large neck is more convenient for putting the fruit in quickly.

If corks are used it will preserve them and facilitate getting them out, to crowd in a cloth with them, and if the cork is rather small, more than one thickness can be used.

If, after the bottles have been dipped in wax once, blubbers appear on the surface, as if air escaped, they should be dipped again.

When persons get accustomed to preserving fruit in air-tight jars, they will never resort to the old way again. Less sugar need be used, so that in time it is more economical, and is of course more healthy. When once sealed properly, no further attention is required, such as scalding, &c. It will keep an indefinite length of time.

Earlville, Madison Co., N. Y., July, 1863.

CANNING FRUIT.

EDS. CO. GENT.—At p. 32, present vol., an inquiry is made as to preserving fruit in cans or jars. I have used tin cans, and glass and stone-ware jars for the purpose. Tin I have found to be not reliable for using more than once. The acid of the fruit will eat holes through from the inside. Glass jars I have found to be expensive, because they are liable to crack in heating. Stone jars, hard burned and well glazed *inside* as well as outside, I find to be just the thing. They are cheap, reliable and durable. I find them at the potteries in Albany. The sizes are of one, two and four quarts each, milk measure; prices $1.25, $2.00 and $3.00 per dozen. Their openings are from 1½ to 2½ inches in diameter, and intended for flat corks to fit them. The wax for sealing is made of rosin, bees-wax and tallow, in the proportions of sixteen parts of rosin, two of bees-wax and one of tallow.

The fruit of the berries is prepared by hulling or stemming, and the jar is filled. Then, to fill the crevices, use two to four ounces of sugar to the pound of fruit, dissolved in water enough to *nearly* cover the fruit in the jar—not quite—because the liquid will expand in heating, and it would so run over, and then, if not enough, it is better to add when near the boiling point, leaving just room for cork, and one half inch for wax above it. In preserving tomatoes or similar articles, nothing need be added to the fruit, their own juice being all sufficient.

Place the jar in a boiler or kettle, the neck out of water, the jar resting on a grate made by scrolling a piece of hoop-iron so that there may be a circulation of water beneath the jar. As soon as the liquid in the jar is raised to a boiling heat, (which is done to expel the air from the fruit and liquid) with a piece of cloth in hand seize the jar by the nozzle, remove it to the bench and quickly drive in the cork, using a piece of wood for a driver, its diameter nearly as large as that of the cork. If steam press through the pores of the cork and condense on it, apply a dry cloth to absorb it. Then quickly fill the cavity with melted wax. An iron spoon is a good ladle for that purpose. When the jar becomes cooled it should be kept in a cool place, that the fruit may not ferment—as a cool cellar. If the cellar is not cool enough set the jars on the bottom and cover them with a tub turned bottom upward. A tub for the purpose can be made by sawing in two a common flour barrel.

When fruit is put up in the above manner, particular attention should be given not to use jars whose openings flare inwards, or are of uniform width, but only those whose openings flare outwards, for when the liquid cools it contracts, causing a vacuum, when the pressure of the atmosphere on the outside will force the cork inward. If forced entirely in, the fruit would soon spoil, unless re-boiled and re-sealed. When putting up fruit in a jug or bottle, it is better to use a short piece of cork, and seal the same as with the jar. If glass is used, in boiling, it should be set in cold water, and the heat raised, being thus less liable to crack. AMOS FISH.

Bethlehem, N. Y., July, 1863.

NON-SWARMING HIVES.

Mr. HAZEN discusses the merits of swarming and non-swarming hives, as if the latter was a thing already accomplished, and to be had without trouble. Until we can get a hive that may be depended on as such, and will give us the surplus in suitable form for market, it seems like a waste of time to discuss which is the most profit. If I understand the principle, it is to convert his hive into a non-swarmer, by simply enlarging it—giving additional room for the bees to work. I have repeatedly detailed proofs that this is not so. Ten years ago I gave a particular list of experiments that should satisfy any one. If Mr. Hazen doubts what I have said, he can act accordingly; he should not mislead others by representing as an established fact what has only been tested by one or two seasons' experience with a very limited number of hives. Bees do very differently in different seasons, in the same place. Very different the same season in different places.

I cannot get a non-swarmer without the surplus honey in bad shape for market; even the dark room is not always certain. A non-swarmer that will produce surplus in good shape for market—small glass boxes—is what has been called for a long time.

If Mr. H., or any one else, will give me such a hive, or even a plan for it, that shall be reliable as a non-swarmer nine times in ten, whether patent or otherwise, I will give him $100. I have no idea that I shall get it.

St. Johnsville, N. Y. M. QUINBY.

How to Get Straight Combs in the Movable Comb-Hive.

Although it has been public a short time, it is not generally known that a new way of getting straight combs has been discovered. The hive is prepared in the usual way, with an angle on the under side of the top of the frame. Immediately on hiving the bees, elevate the back end of the hive some thirty degrees, when the frames run from front to rear, being careful to have the sides vertical. When the combs extend across the top, the hive may be set level.

The uncertainty of getting straight combs has discouraged a great many from using these hives. Such as have continued their use, have found it necessary, with all the guides we have had heretofore, to constantly superintend them, change the alternate frames end for end, with a knife bend the combs into line, &c.; but with the above simple position it is all right, and scarcely any trouble. M. QUINBY.

St. Johnsville, N. Y.

COST OF HARVESTING HAY.

A correspondent of the *American Agriculturist* remarks:—I had occasion to hire a meadow of nine acres the present season, and the notes from my field-book show the cost of the hay and of the harvesting, and also throw some light upon the profits of farming:

The rent of the land was	$20.00
Cutting grass with horse-mower	6.50
Raking four hours with horse-rake	1.00
Curing and stacking seven tons	7.50
Total	$35.00

This shows the cost of the hay in stack to be five dollars a ton. As it is worth fifteen, there is a profit of seventy dollars on the nine acres. But it is poor farming where grass yields under a ton to the acre, as in this case. Had the land yielded two tons to the acre, it would have cost no more to mow it and to rake it. The only additional expense would have been in gathering, which would not have exceeded a dollar a ton. From accounts kept several years, I have never been able to gather hay with the scythe and hand rake for less than three dollars a ton. The expense in this is but a trifle over two dollars a ton. The farmer who owns his horse-mower and rake, I have no doubt can gather his hay for a dollar and a half a ton. What an infinite relief the horse-mowers and reapers are to human muscles. It is cheering to see them appearing in new fields every year.

The above figuring shows that there were only 7 tons of hay from the nine acres. Had there been two tons of hay per acre, the cost would of course been much less per ton. The above estimate we think much too high in some particulars. It has been customary in Western New-York of late years, or since mowing machines have been so well perfected, to furnish team, man and machine, at 50 cents per acre, which would be $4 or $5 per day. The present year the writer had his meadows cut at 31 cents per acre, the owner furnishing only the team which otherwise would have been idle. The farmer, who buys an expensive machine to cut a few acres only, will find it to cost more than this, if he confines the use of his machine to his own small field. A neighboring farmer who usually cuts nearly 200 acres of hay yearly, finds that a good mowing machine will cut at least a 1,000 acres before wearing out, and that the expense of the machine. including repairs, will not be more than 12 cents per acre. Estimating the value of the team at $2 per day, and at 10 acres each day, or 20 cents per acre, the whole cost of cutting will be only 32 cents per acre. A yield of two tons could therefore be cut for 15 cents a ton. On smaller farms the interest on the cost of the machine would make the expense greater. The above copied estimate makes the cost of raking $2.50 a day of 10 hours; and the stacking alone is placed at over $1 a ton, which is more than twice as much as it has cost the writer for several years past, although he could not be with his workmen for constant superintendence. He has also found that the whole cost of cutting, raking, drawing the hay half a mile, and pitching it into the barn does not usually exceed 80 cents per ton.

There is no doubt that by the use of the best mowers, horse rakes, and horse forks, and with all the facilities which good farm roads, convenient buildings, and constant personal supervision by the owner would furnish, hay from heavy meadows may be cut and secured for 50 cents per ton, according to the estimate published on page 74, vol. xviii of the Co. Gent.—provided the weather should be favorable and reasonable caution exercised to avoid storms, which the rapid work of this farm machinery would usually enable farmers to do.

STEAM PLOWING.

Eds. Co. Gent.—I notice in the Co. Gent. of July 25th, an article from H. P. B., headed *Steam Cultivation.* Amongst other things I see he makes some remarks about steam power for plowing; but I believe he comes to the conclusion, that so far as has been tried, it has been thought impracticable. Now, I think some (if not all) who have been experimenting, have aimed to accomplish too much.

I think that I could—or if I could not—that a *Yankee* of ordinary inventive genius, could make a steam engine which would drive my plow—or a plow of my make—which will cut a furrow 10 or 12 inches wide, and 8 or 10 inches deep, and turn it well, with a draft of about 300 pounds by the dynamometer, and weighing 95 pounds. I think an engine could be made, which could be managed by one man, and so constructed as to turn a right angle, or a curve, by raising the plow, and could be driven with about double the velocity of an ordinary team of horses, or sufficient to plow 4 acres a day of prairie land where there is no stone or stumps or anything to interfere with its working.

Perhaps in constructing the propelling apparatus, the *Yankee* might take a hint from the old Dutch wheel plow and make the furrow wheel the largest. As to the economy of the thing, I have my doubts; I leave that for those to determine who are better able than I am to judge.

Darius Clizbe.

A Better Mode of Training Lima Beans.

Messrs. Editors—In the Country Gentleman for July 2d, you describe the method adopted by Mr. W. A. Underhill, of Croton Point, for training Lima beans, which is very good. But for many years I have practiced a little different plan which I think you will consider better. I set two rows of posts four feet apart, and eight or ten feet apart in the rows; the posts six feet high above ground. These may be made of good chestnut rails, hewed to three inches square at the top. Twelve inches above the ground along the line of these posts, I nail a strip 3 inches wide, and another at the top of the posts, of less width. Across, on the top of the posts, is nailed another strip to keep the posts firm; another strip forms a ridge pole, supported by small rafters, set at an angle of forty-five degrees, from the top of the posts. To the lower strips is tied cord, sixteen inches apart; each cord is taken around the upper slat, and over the ridge, and secured on the opposite side in the same manner. It is designed to have but one plant to a cord. In this method of planting, more plants can stand on the same ground, and still so divided as to be open to the air and light, and the result is, a product nearly or quite double that which can be grown upon poles. If the frame is well set up it will last many years. It may be so made that it can be removed to different locations. When the posts are set on each side of a garden walk, a very neat, shady avenue is formed, with economy of room. This plan is not confined to Lima beans, but it is equally adapted to all the running varieties.

H. P. B.

☞ The next Hendricks County Fair, will be held at Danville, Hendricks County, Indiana, on the 15th, 16th, and 17th of next ninth month. Awards will be made as heretofore, but the premium money will remain in the hands of the Society, to be donated with the entire proceeds of the Society, to the families of soldiers.

A. FURNAS, President.

RULES FOR ORNAMENTAL PLANTING.

Preparation of the Ground.—1. The first object is a proper surface. Round off angles and sharp points on the more finished portions; an abrupt surface is not objectionable for the wilder parts.

2. Do not attempt heavy excavations; they are too costly. A little paring down, and a little filling up, are all that is necessary. The man of taste will adapt himself to his ground.

3. A main object is depth and fertility. Trench and subsoil a foot and a half deep if practicable, which will prevent the effects of drouth, and induce vigorous growth. A fair amount of manure should be evenly distributed, and well worked in at the same time.

4. Uniform fertility and absence from sterile patches, should be secured by a thorough use of the harrow and rake, intermixing all parts of the soil alike.

Mode of Planting.—5. The most expensive mode of planting is that which requires the digging of the whole or most of the surface, as in geometric flower-gardens; the cheapest is the planting of large trees, and the grazing of the lawn by small animals, as sheep.

6. The best mode for ordinary practice in small places, is the natural style—that is, with curved walks, smoothly shaven lawn, and circular, elliptic, or arabesque flower-beds, cut in this smooth turf. For larger places, or with many acres, trees alone may be planted on the lawn which may be kept mown, or grazed with sheep.

Distribution of Trees and Shrubs.—7. Avoid the old, stiff, geometric mode of planting in straight lines, unless in particular cases along roads or avenues, or strictly for purposes of utility.

8. Imitate the graceful groupings seen in the most beautiful natural plantations, or in landscape pictures.

9. In the absence of any other guide, the novice may copy in his groupings, the irregular and scattered drops of rain on a flagstone, or the position of the stars in the sky.

10. Plant most thickly, and with the larger, or with evergreen trees, where it is desirable to conceal unsightly objects, or to shelter from prevailing winds; and leave the view more open, where distant or pleasing objects may be seen, as hills, lakes or rivers, villages, &c.

11. Plant so as to conceal boundary fences, and leave the view partly open towards some of the further corners of the grounds, to prevent a cramped or confined appearance. The extent will be apparently increased by placing trees of light or fine foliage toward these distant parts.

12. In order to avoid abruptness, gradations from one kind of trees to another—as, for instance, from evergreens to deciduous,—should be somewhat gradual, or by intermingling the two together.

Lawns.—13. To prevent lawns from becoming dry, brown, and burnt during the heat of summer, the soil should be made deep and fertile.

14. To prevent uneven patches of grass, great uniformity in applying the manure should be observed.

15. To secure a dense, fine carpet of verdure, sow evenly at least two bushels of seed per acre. If done early in spring, and rolled, or finely raked, or harrowed in, (not covering more than half an inch deep,) it will make a fine and perfect lawn the same summer.

16. Kentucky blue, or June grass, red top and white clover, form a good mixture, as well as the lawn mixtures sold at the city seed stores. White clover is too coarse for the finest lawns, but answers admirably for such as are grazed by animals.

17. The finest and most perfect lawns are mowed twice a week during the growing season, and are never more than an inch above the surface. Others less finished are mowed once a week early in summer, and once a fortnight after harvest. If cut less frequently, the grass becomes thin and brown near the surface of the soil.

Walks.—18. No part of pleasure grounds are more expressive of the character of the keeping than the walks. The finest gardens, with rough, irregular, and unfinished walks, convey an expression of bad management; but if smooth, graceful, and well kept, even though a wild, natural shrubbery, they impart a graceful air to the whole.

19. Avoid abruptness in curves, but let a long curve pass gradually into a short one.

20. There should be an apparent and obvious reason for every curve—either for the purpose of sweeping around from one object to another, or to avoid such an object as a flower-bed or mass of shrubbery, placed in the direct line. Hence it is advisable to place such an object on the inner side of any curve.

21. The only part of a walk visible to the spectator, should, in general, be that portion immediately before him; the other parts, therefore, should be concealed by plantings, or by rising ground.

22. A walk should not pass very near the boundary, to avoid a feeling of narrowness or confinement.

PRESERVING FRUIT.

Some days since I read in your journal some suggestions in regard to preserving fruit. Allow me to tell you how we manage this in my family. Take ordinary glass jars—those with the top edge rounded off and forming a bead, however, are the best—fill them full of boiling fruit, full to the overflowing. Then having previously prepared pieces of tin foil, place one immediately over the mouth of the jar, press it around as smoothly as possible, and pass round the same a cord or string, say three times, making a single tie at each turn only, except the last. Then with the thumb or finger nail, rub the foil close to the glass on the upper and outer edge of the mouth of the jar. If the foil be free from holes and securely put on, it will soon assume—even in a few minutes—a concave form, as much so nearly as that of a large silver spoon. If not, some defect exists. The jars, of course, should be well warmed or heated before introducing the hot fruit, to prevent breaking—besides the hotter everything is kept the better. It is more convenient in handling and filling the jars, to place them in a pitcher, thereby in effect securing a handle for the time being.

We have practiced this plan for ten years, and out of 50 to 100 jars put up each year, I think we have never lost one—have kept them for two seasons in this way. Have never tried vegetables.

From the difficulty of keeping tin cans clean and tasteless, or making corks tight, or the uncertainty of melting compositions for the purpose of sealing hermetically, necessity being the mother of invention, the writer hit upon the manner herein described, and we have found it to work admirably.

The chief difficulty about it is to procure suitable foil. That found for sale in a retail way is generally worthless, on account of its imperfections. It must be entirely without holes. I obtain it in rolls from the manufacturers in New-York; but even then we always examine it thoroughly. The best way to do this is, after cutting the foil in suitable pieces, hold each piece close to the eye, and turning towards the light, the smallest perforation will appear, particularly if it be rather dark behind—the pieces should of course be moved about when searching for holes; or use a light for the purpose, keeping it as dark as possible behind you. Evening, in fact, is the best time to make the examination. The foil should be pretty stout—but I have found quite thin foil to stand well. If the mouth of the jar should be quite large and the foil thin, it is best to put on two thicknesses. To do this, lay one piece down and rub a little of the fruit juice over it, and then lay another piece on it, rubbing them together. This is much better than putting two single pieces over the mouth of the jar. I. M. M. *Greenfield Hill, Ct.*

Pruning the Rochelle Blackberry.

We continue to hear frequent complaints of the rampant straggling growth of this bush, extending across alleys, tearing dresses, at the same time proving unproductive. This is all owing to a neglect of summer pruning. As soon as the new shoots have reached three and a half feet in height, the ends should be pinched off with the thumb and finger, which will cause the protrusion of laterals. These in turn are to be pinched off when they have grown eighteen inches. It will be necessary to pass along the rows every two weeks in doing

Fig. 1.

Fig. 2.

this work, as new shoots will be constantly thrown out during the entire summer. The plants being thus kept within bounds will present the neat, compact, and productive bushes shown in fig. 1, instead of the unproductive stragglers, if left untouched, represented by fig. 2.

TRIMMING HEDGES.

There has been some discussion, in former volumes of this paper, on the expense and best mode of trimming Osage Orange Hedges, and some have regarded it a formidable item of expense. We have made some experiments and observations on this subject, and give our readers the following results:

Trimming with a stiff scythe is a rapid mode, but as the operator has to strike upwards in order to do the work smoothly, and to prevent breaking and splitting the branches, it is hard and severe work on the wrist. In most of the experiments alluded to, a common corn-cutter has been employed, which has a wooden handle about a foot and a half long, in which a steel blade is set obliquely and about twelve inches long, fig. 1. With this simple instrument one man has trimmed one-half to three-fourths of a mile of four-year hedge on both sides in a day—cutting it to a peak in the middle, like the roof of

Fig. 1.

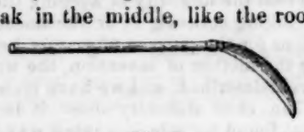


Fig. 2.

a house. A great improvement would be made in this tool by making the handle three and a half feet long, and setting the blade more nearly in a line with it, as shown in fig. 2. The blade of an old scythe, cut short, might be worked over by a blacksmith, so as to answer the purpose well. This length of handle enables the operator to strike more efficient blows, and keep his hands clear of the thorns. The workman we have employed is satisfied he could easily trim a mile or more in a day with such a tool. When the hedge becomes older and higher, the labor probably would be somewhat increased; but two annual trimmings would not probably cost more than one cent a rod.

FRUIT LADDER AND FRUIT PICKER.

What is the best form for a fruit ladder? and the lightest weight possible, with sufficient strength for one twenty feet long? What is the best kind of fruit picker, and where can it be had? C. *Cecil Co., Md.*

The fruit ladder may be nearly in the form of a common ladder, such as is used by carpenters, house painters, &c. The size of the parts must depend on the strength of the timber used, and may be judged of by examining such ladders as above mentioned. They may be a simple ladder resting on the limbs of the tree; or a self-supporting one with legs. In the former instance, it will be most convenient to run the two sides to a point at the upper end, so that it may be thrust up conveniently among the branches, and rest more securely. A self-sustaining ladder with folding legs, is shown in the annexed cut. The best fruit

Fig. 2.

picker for ordinary use, was figured and described in the COUNTRY GENTLEMAN last autumn, page 270, and one for

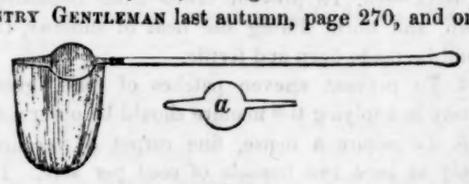
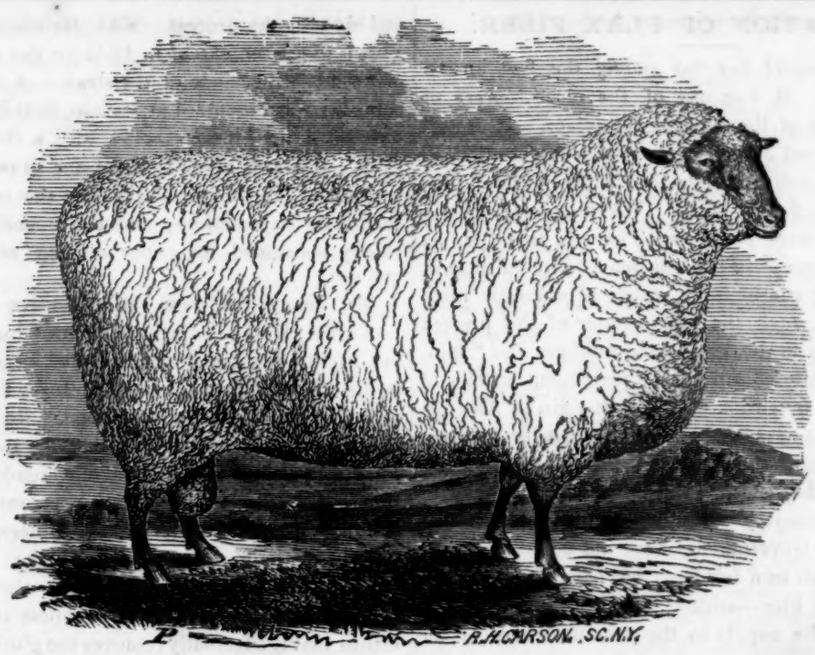


Fig. 3.

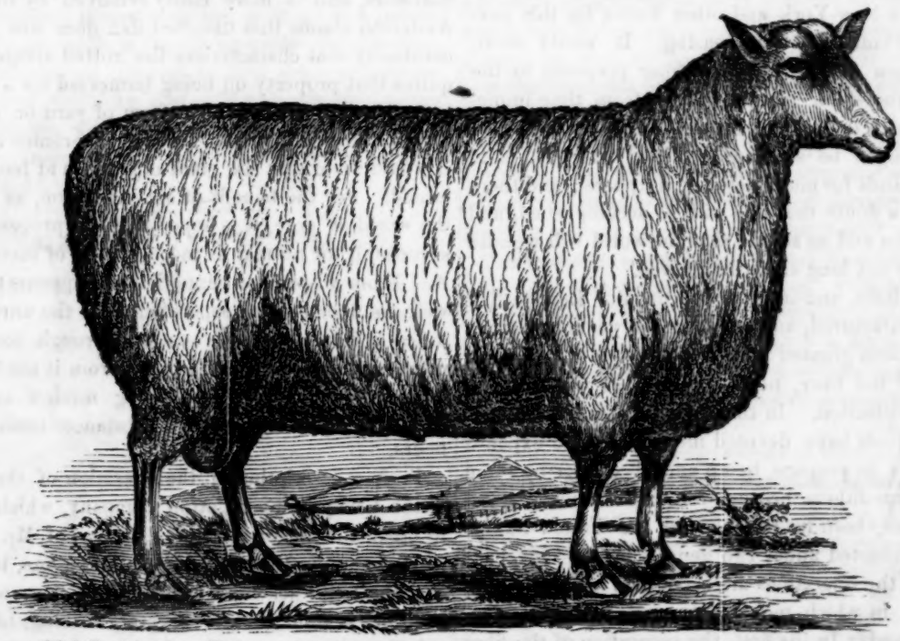
taking apples from the ends of long limbs, in a previous number, page 218.

ANOTHER GREAT EXHIBITION.—The Emperor of the French has ordained a universal Exhibition of Agricultural and Industrial products, to take place in Paris, from May-day, 1867, to the end of the following September.



South-Down Ram "Archbishop" Imported and Owned by Samuel Thorne.

The Imported Prize Ram Archbishop, offered at Mr. Thorne's sale, next week, [see advertisement,] was selected and purchased from the flock of the late Jonas Webb, Esq., in 1860, at a cost of 250 guineas, ($1,250.) He won the first prize in the Yearling Class that season, at the Royal Show, and, as was proved by the Catalogue of Mr. Webb's last South-Down sale, was used more largely by him than any other sheep.



A Three-Year Old Leicester Ram---bred and owned by Jurian Winne, Bethlehem Center, Albany County, N. Y.

Awarded the First Prize as a Yearling at the New-York State Fair, at Watertown, in 1861, in competition with a large turn-out from this State and the Canadas. From a photograph and drawing taken a short time after shearing—when the wool was still considerably less than two inches in length. Mr. Winne furnishes the following measurements, previously made:—Length from end of nose to root of tail, 5 feet 8 inches; breadth across the shoulder, 2 feet 3 inches; breadth across the hips, 2 feet 1 inch; girth (as above stated, with wool on,) 5 feet 8 inches. Live weight at 18 months old, 287 lbs. For information as to his excellent flock of Leicesters, address Mr. WINNE as above.

☞ The St. Lawrence County Fair, (12th) will be held at Canton, September 22–24. Address by HENRY G. FOOTE, Esq., President of the Society.

☞ The Manlius and Pompey Agricultural and Mechanical Association hold their Fifth Annual Fair, at Manlius village, on Thursday and Friday, Oct. 1st and 2d, 1863.

PREPARATION OF FLAX FIBER.

The manufacture of flax was among the first known to civilized man. It was one of the chief sources of wealth and luxury of the ancient Egyptians. It is said that Pharaoh arrayed Joseph in "vestures of fine linen;" and Samson was delivered into the hands of the Philistines bound with flaxen cords. We also read among the plagues that were sent upon Pharaoh, that the flax was smitten with hail.* Flax continued to be cultivated, and formed a very considerable article of domestic manufacture down through the first quarter of the present century; and even to the days of our mothers, the "spinning wheel" constituted one of the permanent articles of their outfit. The invention of the cotton gin in America so reduced the cost of cotton, and increased its production, as to render it one of the controling articles of the commercial world, and to entirely supersede the production of flax as a textile material. But the rebels in their attempt to overthrow the Government, have not only spread devastation over their own fair land, but have even dethroned their boasted king—cotton, and thus have cut off three-fourths of the supply to the manufacturers of the world.

In order to furnish a substitute for the deficiency in cotton, flax has been sown the present season to a wide extent in nearly all of the loyal States in the Union, and large sums will be expended in efforts to reduce the fiber by some economic process, to a condition adapted to machine manufacture. Already several establishments have been erected in New-York and other States for this purpose, and the number is increasing. It would seem, as flax has been grown, and the fiber prepared by the most simple process for manufacturing, from time immemorial, that, with the aid of science at the present day, the process might be so improved and extended as to meet any demands for manufacturing purposes; and there can hardly be a doubt that this will be accomplished, and by means in the end so simple that the world will wonder that they were not long since discovered.

In Great Britain, and in other portions of Europe flax is largely manufactured, and within a few years numerous patents have been granted for different processes for the preparation of the fiber, none of which, as yet, seem to give entire satisfaction. In the United States also, a number of individuals have devoted much time and expense in their efforts to prepare hemp and flax fiber by some cheap and expeditious process for manufacturing. All these processes, both in Europe and the United States, have been conducted under two general heads,—mechanical, in which the operations are carried on in a dry state; and chemical, in which moisture to a greater or less extent is employed. In the first, the separation of the fiber is obtained through the agency of machinery alone, leaving in the fiber much of the soluble substances which it seems essential should be removed; in the latter, a great variety of processes and agents are employed for the separation of the mucilaginous and gummy material contained in the flax. In the most simple form these have been employed from the earliest period of its production. More recently, hot water, steam, acid, and alkaline solutions, in various forms, have been employed, which have accomplished the object, though attended with too much cost. The great end now to be attained, is to cheapen and simplify the process. Flax, for many years, has been grown to a large extent in Ohio for the seed alone, little or no use being made of the straw. A few years since a company was organized at Dayton, in that State, and very expensive machinery erected, with a view to utilize the fiber. Upwards of 200 tons of the straw was at one time collected upon the premises; but the company failed to realize its expectations, and the material produced was chiefly consumed for paper making and for upholsterers' use.

Mr. James Anderson, an extensive manufacturer of Louisville, Ky., has devoted much of his time during the last twenty years, and has expended large sums of money in his efforts to prepare hemp and flax fibre for manufacturing by mechanical means alone. Recently he has put into operation a machine by which he thinks he has overcome all previous difficulties, and rendered the process simple and effective. The work is accomplished by the action of revolving and vibrating rollers, which act transversely of the fibres, and, as he thinks, accomplishes the same result that is secured through the medium of the heckle, but with greater thoroughness and rapidity. He claims that it effectually removes the glutinous and gummy matter which binds the fibres together. The process is applicable alike to water-rotted and dew-rotted flax, as well as to that which is unrotted, either in a tangled or straight condition. But he thinks the process applies better to the unrotted than the rotted article, from the fact that in the former the glutinous matter is of a more friable character, and is more easily removed by friction. Mr. Anderson claims that unrotted flax does not possess that continuity that characterizes the rotted article, yet it acquires that property on being immersed for a short time in tepid water, either in the form of yarn or after it has been fabricated. Should further experience confirm this, it would seem that the great object has at length been attained. For the benefit of Mr. Anderson, as well as for the world at large, it is hoped that this process may prove successful, for no man is more worthy of success than Mr. A. From all previous experience it appears that however well the fiber may be separated from the unrotted straw, unless it is subsequently passed through some steeping process, the goods manufactured from it are liable to be injured from dampness, causing mildew and decay in its action upon the azotized substances remaining in the fibers.

From a description of the operation of the machinery of the Lockport Flax Cotton Company, which is designed to break the unrotted straw, like that of Mr. Anderson's, (inferring from the mere descriptions alone, it would seem that the latter accomplishes the work the most perfectly,) the fiber is submitted to several washing, bleaching and solvent processes, calculated to remove all the azotized substances remaining in it. If then, upon further trial, it should prove that the straw can be broken in its unrotted state as completely, and with as little waste of fibre as it can after it has passed through the rotting or steeping process, and if the process of removing the soluble matters from the fibers can be accomplished as perfectly when reduced to this condition as it can in the straw, then it would seem that nothing remains but to improve these several processes so as to reduce the cost to its lowest possible standard, to render the flax for manufacturing purposes all that it is designed to be.

It is the laborious and expensive process of rotting or steeping the flax in the straw that has prevented it from

*Exodus IX—31. This, and similar instances recorded in that connection affords a most striking parallel to the present condition of that part of our country now under rebel rule.

competing successfully with cotton as a textile material. In breaking it first and removing the woody portion, the labor of handling is reduced more than *four-fifths*, and much of the most disagreeable portion of the work is avoided.

Messrs. Sanford & Mallory of New-York city, are manufacturing a flax dressing machine that has been extensively used, and manufacturers both in this country and in Ireland speak of it in terms of high commendation, but so far as I have been informed its operation is confined to the rotted straw. The saving of fiber in its action over that of other machines is said to be large.

For years past thousands of tons of flax have been grown in the United States for the seed, no regard being paid to the value of the straw, this straw being of the coarsest character because just so much seed was sown to the acre as would produce in return the largest quantity of seed. This course of cultivation, continued for a series of years, has resulted in the growth of a coarse, stocky, branching stem, producing a fiber, if dressed, adapted only to the manufacture of the coarsest fabrics, yet it cannot be doubted that even for these less important manufactures some process for the successful, economical prepara tion of this fiebr is fully within the range of the capacity of the inventive powers of our people. For the finer and more valuable fabrics the farmer must have a greater regard for the quality of the straw, and a larger quantity of seed must be sown to the acre.

From the very general attention which this subject of flax is now receiving throughout the country as a partial substitute for cotton, it is hardly probable that the year will pass round without bringing to light some process for the treatment of the fiber that will bring it within successful competition with cotton. In the whole field of invention there seems to be nothing that holds out greater promise of reward. H.

MANAGEMENT OF SWAMP MUCK.

From the questions we often hear people ask, and from observation, it is easily seen that the right management of muck is but imperfectly understood. Most people that condemn it, I find on inquiry the only trial they have made has been to plow it in as fresh dug and drawn from the swamp. I have seen people the past season dig and draw it two miles, when dripping with water. Does any one ask, does this pay? I answer, no sir! A cord of peat or muck is allowed to conta'n from 80 to 90 per cent of water, and shrinks from two-thirds to three-fourths its bulk when dry. It will be easily seen there is no economy in moving it any great distance until it has parted with a large share of its moisture. My own plan has been to dig in dry weather in the fall. I dig a ditch, say six feet wide, throwing the muck in a high pile on one side. I let it remain over the first winter, until the second. The frost of the first winter having acted on it and pulverized the outside, it will not now freeze very deep, and the outer crust can be easily broken with a pick. When the ground is frozen sufficient to bear a team, I draw off about 100 loads on to high and dry ground, and as I have two miles to drraw it, I let it remain until fall. The 100 loads will not now make over 50 or 60 of equal bulk of the former. It is now ready for composting, or it may be spread on the ground where wanted, and plowed in the coming spring. It should never be plowed in until it has been weathered at least two years, and become pulverized and lost its adhesiveness; otherwise you may do your land great damage.

I have met with the most success in composting with horse manure, horn shavings, fish, and such manures as contain much ammonia, as they heat the pile and reduce the mass to plant food. Composting should never be undertaken until the muck has been weathered and pulverized by the frost. In composting I use about one-quarter animal manure.

In regard to the value of this compost as a fertilizer or amendment, I consider it far superior to clear animal manure; its lasting qualities are far greater, and of a greater value. I have abundant evidence to show that the muck or peat I have used is entirely a vegetable substance, and will burn well when dry. L. BASSETT.

North Haven, Conn., August 5, 1863.

HORSE HAY SPREADER.

EDS. CO. GENT.—Last spring, in conversation with a farmer from Massachusetts, I heard of a machine for turning and spreading hay, manufactured in that State, which from his description I judged to be a valuable farm implement. After much search I found where the machine was manufactured, and procured one. During the very unfavorable weather for hay making which we have had this season, I have found it very useful. All farmers know that where grass, averaging one or two tons per acre, is cut with a mowing machine it will not dry on the under side unless it is turned over, which is quite a bungling and tedious job. This machine, with a boy and one horse, will turn a strip 9 feet wide, and do it much better than it can possibly be done by hand. By running it over a field two or three times the hay can be cured in one-third the time otherwise required.

The manufacturers inform me that on account of the scarcity of mechanics they cannot manufacture more than enough machines to supply the local demand, and hence have not found it necessary to advertise.

The machine is very simple, not liable to get out of order, and does its work perfectly. I think if some of the extensive manufacturers of farm machinery in this State would make arrangements to build and introduce this, or a similar machine, they would be adding a very valuable implement to the list of farm machinery.

Ulster Co., N. Y., July, 1863. P. H. BRINK.

Stacking and Drying Beans.

A correspondent of the Rural New-Yorker gives the following:—I use two stakes instead of one, seven or eight feet long, and from one and a half to two inches through. Set them in the ground about two inches apart; put a withe on the stakes a foot or eighteen inches from the ground; take a small handful of beans and lay the roots between the stakes, so far through that the tops will not reach the ground; then a bunch on the other side in the same way. After this, the *roots* only should come between the stakes, and the roots of each bunch should be laid *at right angles with those of the bunch preceding.* When within a foot of the top of the stakes, put on another withe, drawing the stakes together to hug the roots closely, then fill up with beans, as before, to the top; then take two bunches of beans, tie the roots together and lay astride the top, and it is finished.

Beans stacked in this way will never mould, as they often will when stacked around one stake. They should be stacked as soon as pulled, and always handled by the roots. When the stacks are thoroughly dry, they may be taken to the ground whole, pulling the stakes from the ground.

Royal Ag. Society's Annual Exhibition.

The Royal Agricultural Society of England met this year at Worcester. Judging, perhaps in an American way, from the amount of money received, the exhibition was a very successful one. The aggregate receipts are stated at about £6,500 (say $32,000) and were only exceeded in the whole history of the Society, by the Leeds Show in 1861, and that at Battersea Park last year, both of which were regarded as quite "out of the common run." And for its efficiency and excellence as an agricultural show the Worcester Meeting has been highly spoken of.

There was the usual Steam Plow trial at the outset, with no less than seven competitors. There were two classes of prizes offered, with reference to the size of the cultivators competing, as follows:

STEAM CULTIVATORS—CLASS 1.—Gold Medal and £30, John Fowler, fourteen-horse set of steam-plowing machines, complete—1st prize: £20, William Savory & Son, two ten-horse self-propelling winding engines—2d prize; Silver Medal, Wm. Steevens, four-furrow steam plow and cultivator combined—3d prize. Commended—Coleman & Sons, set of steam cultivating apparatus.

STEAM CULTIVATORS, for small occupations—Class 2.—£25, John Fowler, ten-horse set of steam plowing machinery, complete—1st prize; £15, Wm. Smith, do., 2d prize; £10, J. & F. Howard, do., 3d prize.

Coming to the Live Stock, we find the show of Short-Horns on the whole meeting with considerable criticism—particularly as to the aged bull and cow classes. Of the bulls under 2 years old and above 12 months there was a capital turn out—in all, twenty-eight entries, and the winner "the Hero," belonging to R. Eastwood of Thorney Holme, is highly praised in nearly all points except color, as he is white. There were thirty-five entries in the young bull class, which were also a superior lot. The class of yearling heifers is mentioned as a good one. But the gems of the field were the heifer calves, as all accounts agree. The Scottish Farmer, for example, says they "were remarkably good, among the best that have ever been witnessed at any of the Royal Agricultural Society of England shows." And here we have to record

AN ITEM FOR AMERICAN CONGRATULATION!

The first prize went to Lady Oxford 5th, bred by D. M'Intosh, Havering Park, but whose parents on both sides were bred by SAM. THORNE, Esq., of Dutchess Co., N. Y. The Illustrated London News, whose reporter is good authority, remarks:

"Mr. M'Intosh's pure Bates Lady Oxford 5th, the first calf by that gentleman's celebrated American bull, Third Duke of Thorndale, fairly distanced the calf class. She had been a winner at the Essex Show, a short time before, with a half-sister as second to her. Her form and handling created quite a sensation, and if there had been a gold medal this year, it is quite on the cards that she would have beaten all the Short-Horn females."

Both Third Duke of Thorndale and Lady Oxford 4th, the sire and dam of this heifer, were a part of Mr. Thorne's shipment in 1861, and were sold by him at that time to Mr. M'Intosh. We add the opinion, expressed by the North British Agriculturist, of Lady Oxford 5th:—"The first prize was a wonderfully fine calf, eleven months old, a perfect marvel of depth, quality, and symmetry, with a sweet head, and charming skin and hair, bred by Mr. M'Intosh of Havering Park."

Worcester is almost in the centre of the Hereford district, and the show of this breed was consequently a more important feature than usual. As Hereford breeders in America, however, have never been very liberal feeders, having always accused the Short-Horns of being "ruined by their loads of fat," and as we never met one of them who would fully credit our statement that other improved breeds in England are equally at fault (so far as their capacities will admit) on this score,—it is somewhat amusing to find such remarks as the following, from the Scottish Farmer: "Bad as some of the Short-Horns were for fat, *the Herefords were a great deal worse.* Indeed, many of those shown in the breeding classes might have been transferred to the shambles without the necessity of giving them another pound of oil-cake." Notwithstanding this, however, they appeared to great advantage, and the Mark Lane Express says they presented "indisputably the most evenly excellent entry of any breed on the ground." The total number of Short-Horns shown was about 180; that of Herefords, here on their own ground, about 95. The North British Agriculturist says: "The Herefordshire agriculturists were justly proud of the appearance made by their favorite breed of cattle;" and, of the bull calves, that they "were very equal, and many of them showed early maturity to a degree little short of the more highly prized Short-Horn. One of the bulls is pure white, with the exception of a few brown hairs on the tips of the ears. Few looking at this animal would have supposed that he was not a Short-Horn."

The Devons.—"There was a capital show of this, when alive, very pretty, and when dead, exceedingly palatable, animal. Indeed, it is not often that such first class specimens of this breed are brought together. Among the exhibitors was Major-General Hood for the Queen, who carried off two first prizes, one in the yearling bull and another in the heifer classes. The cow class was particularly good."

There was an excellent display of Leicester SHEEP, the well-known flocks of Sanday, Inge, Turner, and Dester being largely represented. Of shearling rams there was a very full show—forty-six in all—Colonel Inge getting the first prize, and Mr. Sanday the second and third. Cotswolds were a splendid show both in point of numbers and quality. In the class for shearling rams, Mr. Garne of Aldsworth, swept off all three prizes. Lincolns were rather a limited show, but those penned were good. The Oxfordshire Downs as a class, were very good. "They are a breed which promises to come more into repute, and to supersede in some degree the smaller Southdowns, mutton and wool being the great desiderata at the present time." The Southdowns were an unusually good show, Mr. Rigden, the Duke of Richmond, Lord Walsingham, and the Messrs. Heasman being the principal exhibitors. Lord Walsingham almost swept the yard of the entire prizes, getting all three for shearling rams, all three for rams of any other age, and first for shearling ewes. The second prize in the latter class went to the Messrs. Heasman, and the third to Mr. Farquharson of Langton House. The Shropshire men came out remarkably well, sending large numbers of this now thoroughly recognized and much esteemed sheep to the show; and many of them were specimens calculated to increase the reputation they have already earned.

Some of the reporters say that on the whole, the Royal Show Yard never saw so fine a turn-out of sheep.

☞ H. G. WHITE, Esq., South Framingham, Mass., sends us a plate representing the Short-Horn cow "Aba," drawn on stone by J. R. Page. She is six years old, and is destined for the butcher after feeding the coming winter. Her present weight, Mr. W. informs us, is 1,850 lbs.

List of State, Provincial, County and Local Agricultural Exhibitions for 1863.

STATE, PROVINCIAL, &c.

American Institute--New-York. Opens at Academy of Music, Sept. 27.
California--Sacramento, Sept. 26, Oct. 1.
Canada, Lower--Montreal, Sept. 15, 18.
Canada, Upper--Kingston, Sept. 21, 25.
Colorado--Denver City, Sept. 17, 18.
Illinois--Implement Trial, Decatur, Sept. 21, 26.
Illinois State Fair--Decatur, Sept. 29, Oct. 2.
Illinois Hort. Society--Rockford, Sept. 9, 11.
Indiana--Indianapolis, Sept. 28, Oct. 3.
Iowa--Dubuque, Sept. 15, 18.
Kansas--Leavenworth, Oct. 6, 9.
Kentucky--Louisville, Sept. 15, 19.
Michigan--Kalamazoo, Sept. 23, 26.
Minnesota--St. Paul.
New-Jersey--Paterson, Sept. 8, 11.
New-York--Utica, Sept. 15, 18.
Ohio--Cleveland, Sept. 15, 18.
Pennsylvania--Norristown, Sept. 29, Oct. 2.
Pennsylvania Hort.--Philadelphia, Sept. 15, 18.
Vermont--Rutland, Sept. 8, 11.
Wisconsin--No Exhibition.
Wheat Show at Rochester, Sept. 8, 10.

COUNTY AND TOWN—MAINE.

Cumberland--Portland, Oct. 14.
Franklin--Farmington, Sept. 30, Oct. 1.

NEW-HAMPSHIRE.

Cheshire--Keene, Sept. 22, 23.
Hillsborough--Oct. 1, 2.
North Weare--Weare, Sept. 24, 25.

VERMONT.

Champlain Valley--Vergennes, Sep. 16, 17.
Chittenden--Burlington, Sept. 22, 23.

MASSACHUSETTS.

Barnstable--Barnstable, Oct. 6, 7.
Bristol--Taunton, Oct. 6.
Berkshire--Pittsfield, Oct. 6.
Essex--Andover, Sept. 29.
Franklin--Greenfield, Sept. 24.
Housatonic--Great Barrington, Sept. 30, Oct. 1.
Hampshire, Franklin and Hampden--Northampton, Oct. 1.
Hampshire--Amherst, Oct. 8.
Hampden--Springfield, Oct. 6, 8.
Hampden East--Palmer, Oct. 13.
Highland--Middlefield, Sept. 10.
Hoosic Valley--North Adams, Sept. 22.
Middlesex--Concord, Sept. 17.
Middlesex South--Framingham, Sept. 22.
Middlesex North--Lowell, Sept. 24.
Martha's Vineyard--West Tisbury, Oct. 20.
Nantucket--Nantucket, Sept. 29.
Norfolk--Dedham, Sept. 24.
Plymouth--Bridgewater, Oct. 1.
Worcester Horticultural, Sept. 15, 18.
Worcester--Worcester, Sept. 17.
Worcester West--Barre, Sept. 24.
Worcester North--Fitchburg, Sept. 29, Oct. 1.
Worcester South--Sturbridge, Oct. 1.
Worcester Southeast--Milford, Sept. 29.

CONNECTICUT.

Connecticut Horse Show--Hartford, Sept. 8, 10.
New-London--Norwich, Sept. 29, Oct. 2.
Windham--Brooklyn, Sept. 22, 24.

NEW-BRUNSWICK.

York--Fredericton, Oct. 7, 8.

UPPER CANADA.

Durham West--Newcastle, Oct. 8, 9.
Lanark--Almonte, Sept. 15.
South Lanark--Perth, Sept. 17, 18.
Toronto and West Riding York--Toronto, Oct. 6, 8.
Wentworth and Hamilton--Hamilton, Oct. 14, 15.

NEW-YORK.

Albany--Albany, Sept. 29, Oct. 2
Alleghany--Angelica,
Afton Town--Afton, Sept. 15, 16.
Broome--Binghamton, Sept. 8, 10.
Brooklyn Hort. Society, Sept. ——.
Brookfield--Clockville, Sept. 22, 24.
Cattaraugus--Olean, Sept. 22, 24.
Cayuga--Auburn, Sept. 29, Oct. 1.
Chatauqua--Panama, Sept. 22, 24.
Chenango--Norwich, Sept. 29, Oct. 1.
Columbia--Hudson, Sept. 29, Oct. 1.
Delaware--Delhi, Sept. 29, Oct. 1.
Duchess--Washington Hollow, Sep. 22, 24.
Ellisburgh and Adams--Ellisburgh, Sept. 10, 11.
Essex--Elizabethtown, Sept. 17, 18.
Erie--Buffalo, Sept. 16–18.
Fulton--Fondas Bush, Sept. 30, Oct. 1.
Genesee--Batavia, Sept. 30, Oct. 1.
Harpersville--Harpersville, Sept. 23, 24.
Herkimer--Ilion, Sept 23, 25.
Jefferson--Watertown, Sept. 29, 30.
Lewis--Lowville, Sept. 9, 11.
Little Falls Farmers' Club--Sept. 23, 25.
Manlius and Pompey—Manlius, Oct. 1, 2.
Monroe--Rochester, Sept 8, 10.
Oneida--Rome, Sept. 8, 10.
Orange--Goshen, Sept. 29, Oct. 1.
Orange Horse Show--Middletown, Sept. 2, 3.
Orleans--Albion, Sept. 17, 18.
Oswego--Mexico, Sept. 22, 24.
Otsego--Cooperstown, Sept 30, Oct. 1.
Ontario--Canandaigua,
Oxford Town--Oxford, Sept. 21, 23.
Queens--Hempstead, Oct. 1, 2.
Rensselaer--Troy, Sept. 7, 11.
Schuyler--Watkins, Sept. 24, 26.
Schoharie—Schoharie, Sept. 23, 25.
Seneca--Ovid, Sept. 9, 11.
Smithville Town, Sept. 10, 11.
St. Lawrence--Canton, Sept. 22, 24.
Susquehanna Valley--Unadilla, Sept. 24, 25
Saratoga--Saratoga Springs, Sept. 1, 4.
Trenton Union--Trenton Falls, Sept. 1, 3.
Ulster--Kingston, Sept. 22, 24.
Warren--French Mountain, Sept. 23, 25.
Washington--Salem, Sept. 9, 11.
Westfield--Chautauqua, Sept. 9, 11.
Wyoming--——Sept. 22, 23.
Yates--Penn Yan, Sept. 29, Oct. 1.

NEW-JERSEY.

Burlington--Mt. Holly, Oct. 6, 7.
Monmouth--Freehold, Sept. 23, 24.

PENNSYLVANIA.

Bucks--Newtown, Sept. 30, Oct. 1.
Glenwood--Susque. Co., Sept. 15, 17.
Susquehanna--Montrose, Sept. 30, Oct. 1.
Wyoming--Wyoming, Oct. 20, 22.

DELAWARE.

Newcastle--Wilmington, Oct. 6, 8.

INDIANA.

Fayette--Connersville, Sept. 1, 4.
Hendricks--Danville, Sept. 15, 17.
Harrison--Corydon, Sept. 8, 11.
Morgan--Centerton, Sept. 8, 11.
Posey--New Harmony, Oct. 6, 8.

MICHIGAN.

Berrien--Michigan, Oct. 1, 2.

WISCONSIN.

Fond du Lac--Fond du Lac, Oct. 1, 3.
Green Lake--Berlin, Sept. 23, 24.
Monroe--Sparta, Oct. 8, 9.
Sheboygan--Sheboygan Falls, Sept. 23, 24
Vernon--Viroqua, Sept. 22, 24.

MINNESOTA.

Dodge County--Wasioja, Sept. 24, 25.

CALIFORNIA.

San Joaquin--Stockton, Sept. 22, 25.
Contra Costa--Pacheco, Sept. 21, 25.

OHIO.

Ashtabula--Jefferson, Sept. 2, 4.
Blanchester--Clinton, Sept. 29, Oct. 2.
Butler--Hamilton, Oct. 6, 9.
Clinton--Wilmington, Sept. 9, 11.
Conneaut--Ashtabula, Sept. 23, 25.
Columbiana--New-Lisbon, Sept. 23, 25.
Cuyahoga--Cleveland, Oct. 6, 9.
Delaware--Delaware, Sept. 30, Oct. 2.
Franklin--Columbus, Sept. 8, 11.
Garretsville--Portage, Sept. 29, Oct. 1.
Geauga--Burton, Sept. 9, 11.
Geauga--Claridon, Sept. 22, 24.
Harrison—Cadiz, Sept. 30, Oct. 2.
Highland--Hillsboro, Sept. 9, 11.
Huron--Norwalk, Sept. 22, 25.
Lake--Painesville, Sept. 30, Oct. 2.
Loraine—Elyria, Oct. 6, 9.
Madison--London, Sept. 9, 11.
Mahoning--Youngstown, Oct. 6, 8.
Madison Town--Groveport, Sept. 23, 25.
Marion--Marion, Sept. 23, 25.
Miami--Troy, Sept. 30, Oct. 2.
Madison--London, Sept. 9, 11.
Muskingum--Zanesville, Sept. 8, 11.
Orwell District--Orwell, Sept. 22, 24.
Paulding--Antwerp, Oct. 1 2.
Pickaway--Circleville, Sept. 30, Oct. 2.
Richland--Mansfield, Sept. 29, Oct. 1.
Seneca--Tiffin, Sept. 30, Oct. 2.
Summit--Akron, Sept. 30, Oct. 2.
Stark--Canton, Oct. 7, 9.
Twinsbugh--Twinsburgh, Sept. 9, 11.
Trumbull--Warren, Sept. 29, Oct. 1.
Tuscarawas Valley--Massillon, Sept. 30, Oct. 2.
Van Wert--Van Wert, Oct. 1, 2.
Warren--Lebanon, Sept. 23, 25.

ILLINOIS.

Bureau—Princeton, Oct. 6, 10.
Carroll--Mt. Carroll, Sept. 17, 19.
DeKalb--DeKalb, Sept. 15, 17.
Hancock--Carthage, Sept. 22, 25.
Kane—Geneva, Sept. 30 Oct. 2.
Kankakee--Kankakee, Sept, 16, 18.
La Salle--Ottawa, Sept. 8, 11.
Lee--Dixon, Oct. 14, 16.
Macoupin--Carlinville, Sept. 22, 25.
Marion--Salem, Sept. 16, 18.
Madison--Edwardsville, Oct. 6, 9.
Marshall--Henry, Sept. 16, 18.
McHenry--Woodstock, Oct. 7, 9.
McLean--Bloomington, Sept. 7, 11.
Mercer--Millersburgh, Sept. 22, 24.
Morgan--Jacksonville, Sept. 15, 18.
Ogle--Oregon, Sept. 22, 24.
St. Clair--Belleville, Sept. 15, 18.
Stark--Toulon, Sept. 22, 24.
Tazewell--Tremont, Oct. 7, 9.
Union Fair--Warren, Sept. 21, 24.
Vermillion--Catlin, Sept. 1, 4.
Winnebago--Rockford, Sept. 15, 18.
Whiteside--Sterling, Sept. 22, 25.

IOWA.

Benton--Vinton, Sept 24, 25.
Central Iowa—Des Moines, Sept. 8, 10.
Cedar--Tipton, Sept. 23, 25.
Chickasaw--New-Hampton, Oct. 8, 9.
Clayton--National, Oct. 14, 16.
Des Moines--Burlington, Sept. 30, Oct. 2.
Floyd--Charles City, Sept. 23, 24.
Fayette--West Union, Oct. 6, 7.
Guthrie--Sept. 29, 30.
Jackson--Maquoketa, Sept. 29, Oct. 1.
Linn—Marion, Sept. 16, 18.
Muscatine--Muscatine, Sept. 1, 3.
Page—Clarinda, Sept. 24, 26.
Pottawattamie--Council Bluffs, Sep. 24, 25.
Scott--Davenport, Sept. 7, 11.
Union--Wheatland, Sept. 30, Oct. 2.
Van Buren--Keosauqua, Sept. 30, Oct. 1.
Warren--Indianola, Sept. 3, 4.

MISSOURI.

Cole--Jefferson City, Oct. 4, 6.

☞ A short time ago the editor of the Ohio Farmer mentioned sales of Wool in a single week, of not less than three hundred thousand pounds of the new clip, in the counties of Clark, Madison and Union—one hundred and eighty thousand pounds of which were bought on the ground at from 68 to 75 cents, the average being about 74 cents per pound. The fleeces of the present year were thought to be from three-fourths to one pound each, lighter than last year

☞ Albion Ransom, Esq., of this city, has left at our office the top of a sucker grown this year from the root of the Doolittle Raspberry, which has six or seven fruit-shoots upon it, and bore 25 or 30 of the largest berries of this variety we have ever seen. It is very rare that fruit is thus produced on wood of the same season's growth; among a large number of similar suckers, this was the only one that showed signs of the kind, and it not only bore, but the berries produced were superior to those on the parent plant.

CONVERSATIONS ON SMALL FRUITS.

Management of Blackberry Bushes.

Novice. What a sight! Why, Mr. P., I never saw such loads of blackberries as these. How do you manage your bushes? They are so snug and handsome. Mine grow all about in every direction, and scratch every body that comes within half a rod of them, and they don't half bear at that.

Planter. The management is a very easy thing, if you only know how. It is quite as easy as hoeing corn and thinning out turnips.

N. I really thought you had some wonderful secret. I should like much to know what your management consists in; do you manure them very highly?

P. They need a good soil—if naturally rich, a moderate and occasional manuring is only required; but you must keep the ground clean, mellow, and well cultivated.

N. But how do you fix it so that they don't grow over half of creation? Your bushes are neat and handsome, and one can pick the berries without being scratched, or any other inconvenience; my women folks get their dresses so torn that they want me to dig out and throw away the ugly briars.

P. In the first place, you must let very few grow—cut up and clear away all the suckers; and now comes the great secret—never allow the plants to grow more than four feet high, nor the branches to extend more than a foot laterally.

N. Why, really, I should like to know how to prevent them from growing—mine do it without asking leave.

P. Simply pinch off the ends of the young shoots by thumb and finger. You must watch them, and do it in time. You will be likely to omit it until a few days too late, when the stems have grown five or six feet high, in stead of three or four.

N. But is this all? It seems to me that wouldn't be enough to produce your handsome bushes.

P. By no means; this is only the beginning—here is where so many fail. Capt. Brown and Deacon Reed have both attempted to carry out my recommendations—only pinched the tops once or twice, and that was the end of it. They soon grew as rapidly as ever, and they said the blackberry wasn't natural to their grounds as it was to mine, and they intended to give them up.

N. Well, Mr. P., what should they have done?

P. Simply to pinch and keep pinching. Pass along the row at least once a week during the growing season, and never allow a single shoot to extend beyond limit. Pinching back is better than cutting back, but if necessary, cut the shoots back within the prescribed limits. Let no bush be more than four feet high, nor more than three feet in diameter horizontally. Keep them in a handsome form; my rule is to imitate the outline of the berry, that is, with a rounded, oval head.

N. I see some of your bushes are staked up, and others not; what is the reason of this difference?

P. Some of the bushes grow stiff and upright, and do not need staking; others lean over, and these I stiffen up.

N. Well, this way of management is really worth knowing, if it makes so much difference in the looks of the bushes and the size of the crop. Why, Mr. P., how did you ever come to think of this way?

P. Partly in two ways; one, on the general principle that summer pinching induces fruitfulness, and partly from remembering when I was a boy picking blackberries, that the bushes the cows had browsed in were always full of berries.

Culture of the Currant.

N. I wish to ask you, Mr. P., about some new kinds of currant bushes that I bought a few years ago on account of their large size, but I have forgotten their names. The nurseryman's agent told me that they would grow more than half an inch in diameter; and at first, when they had a few berries, I thought they were going to be large, but of late they are so puny, that I have concluded he cheated me.

P. You have forgotten the names—they might have been the Cherry and Victoria. How do you manage them?

N. Manage them? I didn't know they needed any managing; I planted them out under the fence, with the rest of my currant bushes.

P. Among the grass, I suppose?

N. Why, yes—I believe the grass does grow among them.

P. And so you have given them neither cultivation nor pruning. I cannot say whether the man cheated you or not, and it makes very little difference. Unless you take care of what you purchase, you might about as well throw them away. I have seen the May's Victoria currant, which I knew to be genuine, and which is quite a large variety, when grown in neglected ground not a particle larger than the old red currant, and the owner was sure that he had been swindled. One great advantage in the large new sorts, is not that they will show their merits under any kind of treatment, but that they will bear proper pruning and good cultivation, and remunerate this care by the rich masses of large berries they produce.

N. Why, I thought the great advantage of the currant was in taking care of itself.

P. It will indeed take care of itself and bear crops, but it so well repays good management that it ought always to receive it. I have more than quadrupled the size of the common red currant by pruning and rich cultivation. The newer sorts are still more improved. A fruit with so certain a crop—scarcely ever killed by frost—never affected by rot—never stung by the curculio—and ripening at so convenient a season—is of great value, and is entitled to the best treatment.

N. What particular kind of treatment would you give the currant bush? Would you manure it? How would you trim it?

P. I would of course manure it, unless the soil was already very rich. Keep the ground clean and mellow, and prune so as to maintain a constant, thrifty growth.

N. I have heard of the mode of training currant bushes in the form of a tree, or with a head on a stem a foot or two high. What do you think of this way?

P. Our climate is too hot; the stem is exposed to the sun, and it should not be over an inch or two in height. With this requisite, it is much better than grown in a dense bush full of suckers. Even the latter, however, may be much improved by cutting out the old crooked wood, and leaving an evenly distributed set of new shoots. These will bear larger and finer berries.

☞ The next Iowa State Fair is to take place at Dubuque, Sept. 15–18. The Secretary of the Society, Mr. J. M. Shaffer, writes us that "it will excel all its predecessors as a useful, attractive and interesting exhibition," and thinks that eastern people could take no better opportunity of coming West for a visit, than at that time—bringing with them anything they may have to exhibit to the farmers of his flourishing young State.

A WORD FOR THE OSAGE ORANGE.

So much has been said pro and con relative to this much abused or misrepresented tree, that a true or correct opinion cannot be formed of its usefulness by ordinary persons, from all that may be selected from the agricultural journals. A short history of my experience with it may be of service to those who may be disposed to try it as a hedge plant.

I began by plowing my field on the borders, six feet wide, and then pulverizing the ground as fine as it could be made with the harrow. In the middle of the six feet I set my plants. The ground should be of uniform fertility, otherwise the plants will grow irregularly—some vigorously, some poorly. If there is a difference in the soil, that which is poor must be enriched. The plants of the hedge row must be selected all of the same size, as near as possible. I set my plants 12 inches apart in the row—this is about the right distance. The plants should be grown from the seed in a nursery, and transplanted at a year old. It is immaterial whether you cut off the top of the plant now; some persons advise to cut it off about 3 inches above the ground when you plant them, and some advise double rows in alternate lines. This is useless, as the sequel of this paper will show. The plan herewith proposed will make the hedge barrier greatly more defensive. The whole of the 6 feet of ground thus prepared and planted must be kept free from weeds all the time, which can be easily done by the cultivator being often used, and an occasional hoeing between the plants. The plants will grow from 2 to 4 feet high the first year, according to the soil.

In the spring following the first year's planting, plow the same 6 feet, and put in good order for the growth of the second year; pulverize and make fine the soil on each side of the hedge, throwing the soil slopingly up to the hedge; then with a spade throw out the soil from the hedge row to the outside border of the pulverized strip on each side of the hedge, about 2 feet from the hedge, with a slope from the hedge to the outter part of the strip, making it so that the soil will be 6 inches higher at the hedge plants than 2 feet from them, giving a regular slope from the plant outward; then cut off the plants to 2 feet; bend them down on the slope prepared for them, and cover the ends for a foot with the soil thrown back on them. All the buds on the upper surface of the plant thus bent over will throw up a stem, and the ends thus covered will take root. The bending down of the plants can be easily effected by taking a rail 8 or 9 feet long, bending down the plants and laying the rail on them till you cover them with the earth; then take up the rail and continue the same process throughout. Tread down the soil, so as to hold the plants in their place, before removing the rail. Thus you will have a hedge with a commencing base of 3 or 4 feet. The second year you may form the hedge to your wish, and this is the most important part about it. Without a good base or bottom the hedge will be altogether worthless, and this must be effected during the first and second year's growth of the plant. This is paramount to all other directions, and only to be obtained by heading down the plant during the early periods of its growth. The plants should be cut so as to keep an even conical or pyramidal shape all over from sides to top. When fully grown trim twice a year. This is the whole philosophy of making a hedge of the osage orange that will give pleasure and satisfaction to the owner.

The conflicting accounts relative to success with this highly useful and beautiful plant have originated in ignorance of its proper treatment and that assiduous attention which it requires till the hedge is complete.

It may be well to mention that my hedges are on clay soil, with a high elevation, such as may be called good wheat lands, very different from the natural habits of the plant in its native soil on the Trinity in Texas, where it is often for a period inundated and overflowed. Yet on this elevation of 540 feet above the level of the Ohio, it grows and flourishes beautifully. My farm is laid off in 10 acre lots, all surrounded with the osage orange hedges as described above, and which in two years more will present a spectacle beyond competition, at least in this State.

I will close my remarks with this advice: "Let no one attempt to make an osage orange hedge who does not resolve to do it in a proper manner."

Melmont, Harden Co., Ky., July 5, 1863. T. C. J.

Ornamental Gardening---Seasonable Hints.

The rapidity of early growth having somewhat abated, less labor will be now required in maintaining the order in all parts of the grounds. Lawns which needed mowing every two or three days early in the season, may now be kept in good order by mowing once a week. Weeds will not spring up so freely; but great care should be taken to prevent any from going to seed, and flower-beds should be kept in perfect order. Annuals, which are to bloom through autumn, may frequently be much improved in the appearance of the plants, and the mass of bloom increased, by pinching or cutting back rampant or straggling branches, so as to give beauty and symmetry of form. Those who wish to make bouquets, may frequently improve the plants by cutting off such straggling parts. By preventing the profuse flowering of bedded plants, the removal of a portion of the bloom for this purpose will prolong the season. Dahlias, and others of the larger and more succulent ornamentals, will need staking up to prevent injury from winds and storms. Those who have green-houses, may commence layering verbenas—which, after a few weeks, may be removed to pots, where they will become well established before winter; if left too late, success in keeping will be less certain. For such as are not supplied with a green-house, it is much easier and cheaper to purchase of dealers verbena plants in spring.

Cuttings of various ornamentals may now be made, and the newly grown plants will possess more vigor and beauty than the old ones which they may replace. Cuttings are easily grown, the principal requisites being to place the ends in sand, and to preserve an abundance of moisture above them. Pots are usually best and most convenient, and should have a good drainage below; the moisture may be retained over the plants by bell-glasses, or even by inverted tumblers. A large number may be started in a single pot, but they should not be removed to separate pots until they have struck good roots and made some growth.

Collecting seeds should be commenced and continued as fast as they ripen. The most beautiful varieties and specimens should be marked while in flower, as in this way new and improved sorts are obtained. All plants propagated by seeds tend to vary more or less from the original; and unless improvement is constantly attempted, there will be most likely a considerable deterioration. Seeds will ripen more perfectly if kept in their capsules or seed-vessels until perfectly dry; but care should be taken that the descriptions of each be kept with them, so as to be written distinctly on the papers when put up and packed away in drawers for winter.

THE CULTIVATOR.

ALBANY, N. Y., SEPTEMBER, 1863.

☞ The Annual Register of Rural Affairs for 1864 is now in press. The usual amount of labor and expense have been laid out upon its contents and illustrations, and we think it will rank as one of the most interesting and useful numbers in the series of which it is the tenth.

The purpose of this notice is to apprize Advertisers that a few pages will be devoted to their wants, as heretofore. The Annual Register remains as a work of constant reference throughout the year; it reaches the hands of several thousands who are not subscribers for either of our other publications, besides its large circulation in connection with the Country Gentleman and Cultivator. The back numbers remain in demand year after year, so that the advertisements are constantly brought into new hands. It had been our intention to increase the price of advertising space the coming year, as it has always been more moderate in proportion to circulation than in any other publication of the kind with which we are acquainted. But we have concluded to continue the old rates, as published below, until a time of greater activity in business enterprize. Meantime, as the sales of the Annual Register continue large not only throughout the Autumn and Winter, but also late into the coming Spring, we may suggest that advertisers should bear in mind this fact in the preparation of their favors: manufacturers of Mowing and Reaping Machines, Plows and other Implements, as well as Nursery and Seedsmen, Breeders, etc., will "be first in the field" for 1864 by taking this medium of reaching the agricultural public.

TERMS OF ADVERTISING IN THE ANNNUAL REGISTER.

One Page	$20.00	One-Third Page	$8.00
One-Half Page	12.00	One-Fourth Page	6.00
Business Cards (Live Stock &c.) from	$3 to $5		

Our friends will oblige us by sending their advertisements *as soon as possible; the space desired should be specified*, in order that the matter may be set as conspicuously as the prescribed limits may permit.

☞ Mr. M. Miles, of the State Agricultural College of Michigan, passed through this city the other day, with the following valuable animals, just purchased by him for the farm connected with that Institution: From the Short-Horn Herd of Sam. Thorne, Esq., the young bull "Fatalist, roan, calved Feb. 19, 1861, by 2d Duke of Thorndale, (17748) out of Favorite, one of Mr. Thorne's most successful cows, having taken the 1st prize as a yearling at the Syracuse State Fair, in 1858, and as a two year old at Albany, in 1859, and her dam Frederica being equally successful as a winner abroad. Also the cow "Dielytra," red, calved May 20, 1858, bred by J. R. Page, by Hiawatha, out of Dinah Gwynne, and now in calf to 2d Grand Duke. Mr. M. has also purchased from the Short-Horn Herd of F. M. Rotch, Esq., Morris, Otsego Co., the heifer "Haze," dark roan, calved March 28, 1862, by Lord Oxford, out of Honeysuckle. Together with the animals mentioned above, purchased from Mr. Thorne, Mr. Miles had also with him the following Devons, purchased from the Herd of E. G. Faile, Esq., West Farms:—Bull "Cherokee," calved May 31, 1861, by Powhatan, out of Bowley—heifers, "Zuleika 2d," calved April, 1861, by Huron, out of Zuleika—and "Eveleen 5th," calved March, 1862, by Cayuga, out of Eveleen.

☞ In the Country Gent. of Oct. 3, 1861, we gave some notes as to the productiveness of the farm of Orange Sacket, Esq., near Avon, Genesee Co., which had averaged, we were informed, *thirty-four bushels of wheat per acre* every year for twenty years—with from one hundred to two hundred acres each year sown to that grain. Such a story bears repetition once in two years at least, for the sake of a hint in answer to the question, "how is it done?" Mr. Harris of the Genesee Farmer, has lately called upon Mr. S., and gives us an inkling of the secret: "Mr. S. keeps a large stock of cattle and sheep, and *makes great quantities of manure*." He spreads it on the clover fields at any time when it is most convenient —was formerly of the opinion "that manure should be plowed under," but has "come to the conclusion that there is less loss by spreading it on surface than is generally supposed."

☞ Mr. J. C. Taylor, Holmdel, N. J., sends us a circular with reference to the South-Down sheep advertised in another column, copies of which may be had by addressing him as above. He offers *to rent* the rams "No. 109" and "No. 106," bred by the late Jonas Webb, together with several others of high reputation, and *for sale* about fifty ram and ewe lambs, a very superior lot of yearling rams, and a few breeding ewes. We infer from Mr. Taylor's circular that he expects to exhibit at the coming Utica State Fair, in which case our readers in this State will have the opportunity of seeing examples of this excellent flock, side by side, we hope, with those of some of our own breeders of equal energy and repute.

☞ Mr. A. Thomas of Fond du Lac Co., Wisconsin, sends to the Co. Gent. the following statement as to a heavy fleece of wool from a ram bred in that State:—"On the 27th day of June last I sheared from a full blood Spanish Merino buck, *twenty-two and a half pounds* of wool, it being three days less than a year's growth. The wool is of fine quality, and the fleece is not only heavy, but very large, being free from gum, and has a much less proportion of oil than is usually found in the heaviest fleeces. This buck is three years old—was sired by a buck from the flock of Stickney & Robinson of Vermont, and is owned by M. Barstraw and myself. I would like to hear from any one, through your valuable paper, who thinks he has a better sheep."

☞ A Wisconsin subscriber gave in the last number of the Co. Gent. the weight of the Fleece sheared by him, this spring from a Merino ram bred in that State. Whereat a Vermont subscriber, Mr. N. T. Sprague, Jr., writes to say that a ram of his, called "Sweepstakes," 3 years old last May, having served during the season 200 ewes, sheared, 12 months' growth, 25 pounds 4 ounces "wool;" that a two year old ewe, with lamb by her side 8 weeks old, sheared 16 pounds 6 ounces, and that a three year old ewe, with buck lamb by her side 9 weeks old, sheared 16 pounds 10 ounces. These sheep were all bred by Mr. S. from pure Atwood stock, and he thinks the fleece of "Sweepstakes" would have been "from 3 to 5 pounds heavier if he had not served more than 75 ewes last season."

☞ A meeting of the Executive Committee of the State Agricultural Society, was held at Utica last week. The Grounds and Buildings for the coming Show were found to be in a forward state. The Erections are in some respects superior to any ever before prepared for the use of the Society, and Exhibitors will find every convenience provided to meet their wants.

In the present prosperous condition of our Agriculture, a large attendance and show may be confidently anticipated. Indeed everything thus far indicates that such will be the case. The attention of the Western part of the State was attracted anew to the operations of the Society by the great success and good feeling that attended its Rochester exhibition. Utica is readily accessible to the Northern part of the State, which was deterred by exceedingly unfavorable weather, from turning out in very large numbers at Watertown, in 1861,—and to all the Eastern part of the State, which has now had no good opportunity of reaching the shows, since that at Albany in 1859.

We are therefore led to hope that we may have a fuller and fairer exhibit than usual, of the present condition of the Agriculture of the "Empire State." The people of Utica, under the energetic lead of JOHN BUTTERFIELD, Esq., are certainly doing all in their power—notwithstanding the high prices of material and labor—to render the coming Show as creditable to them, as our Farmers and Breeders and Manufacturers should see that it is to the enterprise and prosperity of the rest of the State.

"CASHMERE SHAWL GOATS."—Mr. JOHN H. KLIPPART exposes in the Ohio Farmer, the fallacy of the idea that the "Cashmere Goats," of which a good deal has been said for a few years past in this country, can be expected to produce annual fleeces of "five or six pounds per animal, which could be sold for $8 per pound and manufactured into genuine Cashmere shawls." He shows that the actual admeasurement of the hair or wool yielded by them, proves it to be of about the same coarseness as that of Cotswold or Leicester sheep. But what they *do* produce, that is estimated at a high value, is "a fine down, found around the roots of the fleece of the goat, from which the genuine Cashmere shawls are made." Of this the quantity may reach one-half or three-quarters of a pound, but Mr. K. evidently has not much faith that many genuine Cashmere shawls will very soon be made out of it. He inclines to the opinion, however, that "in course of time, when we get the proper machinery, and there are goats enough to supply manufacturers, these fleeces may be manufactured into De Laines, Challies, and other textile fabrics of the same description, for which Cotswold, Leicester and other long or combing wools are used." As the ordinary value of such wools is about 25 cents per lb., and since importations of these goats into France and England are said to have proved that, in these countries, they produced too little down to be of any value—the inducement to farmers to pay at the rate of some hundreds of dollars per head for these interesting creatures, is sadly diminished.

☞ The Committee of the citizens of Nova Scotia, having in charge the contributions of that Colony at the International Exhibition of Roots, Fruits and Cereals, at London last Autumn, have issued their Report in pamphlet form, for a copy of which we are indebted to C. H. BELCHER, Esq. The Committee was awarded a silver medal on the assortment of apples (63 plates) contributed by them, and six bronze medals on grapes, onions, grains, agricultural roots, potatoes and gourds. Six other bronze medals were also awarded to various exhibitors from the same province for other contributions. The result has been the establishment of a Provincial Horticultural Society under the following officers: President, R. G. HALIBURTON, Esq.; Secretary, D. Henry Starr; Patron, his Excellency the Earl of Mulgrave—with five Vice Presidents, and a Council of six members for the county of Halifax, and four each for the counties of Hants, Kings and Annapolis. A general meeting will be held at Halifax on the first Wednesday of April next, to perfect the organization and decide upon the future operations of the Society.

THE STATE AG. SOCIETY AT THE HAMBURGH EXHIBITION.—*Eds. Co. Gent.:* I received this morning, from A. BALDWIN, Esq., Commissioner of the Society to Hamburg, a letter advising me of the general success of the Exhibition. He says:—"Your seeds (from New-York State Agricultural Society) attracted great attention, and have been given to the Swedish Commissioner, and in exchange we have received one of the finest collections of seeds I have ever seen, which are elegantly put up in glass jars, and will be shipped by sailing vessel. I hope they will arrive safely. I shall be the bearer of a Hamburg flag, which was presented for the use of your Society at the next Fair. There is a strong American feeling at this place, and a warm feeling of personal friendship has grown out of this exhibition."

Albany, N. Y., August 11. B. P. JOHNSON.

SHARES' COULTER HARROW is a superior implement, dooming all other harrows to oblivion. By all means get one. Have tried it one summer, and could tell of many marvelous things it has done. Used it "on the sly" in the garden, fearing the ridicule of my neighbors, but now boldly announce its superiority.

TIMOTHY.—I found about twenty timothy stalks among my Lawton blackberries; they averaged over five feet. One five feet and eleven inches, another six feet and one inch. The head of this stalk was eight inches. In their growth they rivalled the Lawton. A. B. PALMER.

INDIAN CORN AS A FERTILIZER.—In the last number of the Co. GENT. you request any reader of your paper who has tried green crops as a fertilizer to relate his experience concerning it. Some eight years ago I plowed under an acre of green corn, as an experiment. I sowed the western corn—had a large growth, let it stand till ripe enough to cut for fodder, rolled it down smooth, and plowed it under to my entire satisfaction, sometime in the month of September. I expected great results from it, for how could it be otherwise with such a quantity of green corn turned under *just right*. The weather was wet and warm for two or three weeks after I turned it under, which I concluded was also favorable to produce vegetable mould. The result was next to nothing—in three weeks it had all vanished—hardly a trace could be found by digging down where it was buried. I saw *no effect* of it on the succeeding crop, which was spring wheat. My opinion is that it is of little worth as a fertilizer. W.B.

A NEW HONOR.—The King of Saxony has sent Baron Liebig the cross and insignia of a Commander of the Order of Albert, "in recognition," such are the words of the accompanying decree, "of the services he had rendered to agriculture in Saxony, in which the practical working man had in manifold instances been benefited by his teaching, and on account of the undeniable success resulting from the impulse he had given."

ALBANY COUNTY FAIR.—The officers of the Albany County Agricultural Society have appointed the 29th and 30th of September and the 1st and 2d days of October, as the time for holding the next Annual Fair at the Washington Parade Ground in this city. The list of premiums offered amounts to some $1,500, and it but remains for the farmers, mechanics and manufacturers to enter freely and fully into the exhibition, and the Fair cannot fail to be one of the best ever held by the Society. The resignations of the former Treasurer and Secretary, some weeks since, have been filled by the election of JOHN MCHARG of Bethlehem, to the former office, and G. I. VAN ALEN of Albany, to the latter. Mr. Van Alen's office is at Number 50, State-St.

Instead of offering premiums on Implements, and other manufactured articles, the Board have decided to permit manufacturers and dealers exhibiting at the Fair to make sales and solicit orders upon the grounds, and, after the Fair is over, will publish a *full Catalogue of all articles* entered in the Manufacturer's Department, with the name of the manufacturer or exhibitor of the same, and the place where manufactured or kept on sale, in connection with the other transactions of the Society. Three thousand copies will be published, and manufacturers, and others who operate machinery on the grounds during the Fair, by steam or horse power, will also be allowed a half page advertisement in this pamphlet free of charge. To others a charge will be made. For particulars, see the Premium List and Regulations, which may be had of Secretary VAN ALEN as above, or at this office.

☞ Mr. P. G. NORTHRUP, President of the Delaware County Agricultural Society, in announcing through the Franklin Visitor, the holding of its next Fair at Delhi, Sept. 16–18, refers to the Agricultural Statistics he has been collecting for the county for the year 1862. He says they are nearly completed, and gives a few interesting details, from which we derive the following statement as to the average yield of Butter per cow, in several Towns and private Dairies:

	No. of Cows.	Average Butter per Cow, 1862.
Town of Walton,	2,064	116 pounds.
do. Masonville,	—	110 do.
do. Davenport,	—	130 do.
do. Sidney,	—	144 do.
do. Andes,	—	123 do.
Hiram Olmstead, of Walton,	13	244 do.
A. Van Dyke, Roxbury,	22	218 do.
School District No. 2, Roxbury,	382	172 do.

Mr. N. adds, what is a very good idea for the imitation of other Societies, that the Delaware County Society has a Herd book, kept for the purpose of showing at a glance, where the blooded stock of the county is kept. Those having improved breeds of horses, cattle and sheep, are requested to register the pedigrees with the Secretary, as well as the particular merits claimed for the breed.

☞ Last year we received from C. B. MILLER'S Horticultural Agency, 634 Broadway, New-York, a specimen of the *Daphne Cneorum*—a flowering plant which has proved itself worthy of wide dissemination. It is an evergreen, and flowers very early in the spring, having a very fragrant as well as ornamental blossom, and blooming very freely. We find it *perfectly hardy*. It passed through last winter here entirely without protection of any kind, and flowered freely on the approach of warm weather. The flowers having soon after fallen off, we supposed its beauty was mainly past for the year; but to our surprise and pleasure, a fortnight or so ago it again came into bloom, and has since been completely covered with flowers. In our garden it is less than a foot in height, is shrubby in growth, and its foliage is very pretty at any time. We consider it a decided acquisition, and when its merits are known, it must become one of the must popular plants of the kind for bedding purposes. It has been recommended to protect it with straw in winter; and we were agreeably disappointed to find that, last winter at least, such precaution was unnecessary. What is the best mode of its propagation, Mr. MILLER?

☞ JOHN H. KLIPPART, Esq., Secretary of the Ohio State Board of Agriculture, will please accept our thanks for copies of his Reports for the years 1858–59–60–61, together with other publications. The latest returns we find in them, of the crops of the State, are for the year 1859, and we have computed from them the following averages, for the sake of comparison with the figures published in our last number as to the crops of 1862:

Grain Crops of the State of Ohio for 1859 *and* 1862.

	1862. Av. per Acre.	1859. Av. per Acre.	1862. No. Acres.	1859. No. Acres
Wheat,	14.39 bushels.	7.45 bushels.	2,090,047	1,790,627
Rye,	12.20 do.	5.73 do.	67,440	98,011
Barley,	20.65 do.	15.95 do.	54,128	102,729
Indian Corn,	28.96 do.	29.65 do.	2,175,531	2,339,204
Oats,	20.26 do.	23.34 do.	574,047	644,954
Total Acres in above Grains,			4,966,193	4,975,525
Add Meadow,			1,571,765	1,340,566
Total surface Grain and Hay,			6,537,958	6,316,091

We take the pains to collate this statement for the benefit of those who asserted that the war was to lessen our Agricultural production. After sending, we do not know the exact number, but we believe over 100,000 of her citizens to the battle-field, here we find Ohio with some 220,000 more acres of grain and grass to harvest in 1862 than in 1859—with an average yield per acre much increased in many items, and less by a very small fraction in only one or two.

☞ Under our Dairy head will be found an interesting lettter from Col. PRATT, showing that the quantity of Milk obtained at his Dairy Farm at Prattsville, considerable exceeds that produced in one or two Scotch dairies recently noticed in our columns. These statements we may farther compare with the one published in our last number, which Col. PRATT had not then seen,—made up from the steward's returns at the Utica Lunatic Asylum, where the cows receive an extra degree of attention, and where the amount of milk obtained proves that great success has been reached in their management. The following is the result of the comparison:

Average Yield of Milk per Cow per Year.

At Frocester Court, Scotland, 5 years, 1857 to 1861,	2,103	quarts
At Col. Pratt's Dairy Farm, do. do.	2,383	do.
At the Utica Lunatic Asylum, 4 years, 1858 to 1861,	2,532	do.
At the Utica Lunatic Asylum for the year 1862, increased by Steamed Food, as described in last number,	2,949	do.

If any of our readers who are dairying, either for the sale of milk, or for the production of cheese or butter, have kept tables of the quantity of milk annually yielded per cow, we should be glad to receive the results, not necessarily for publication, but in order to arrive at an estimate of what constitutes a fair average yield.

It would be likely to promote a more reflecting and a more *successful* kind of management, if farmers would generally be more careful to keep such statistics—both as proving to themselves how high a degree of success they are reaching as compared with others,—and as leading to deductions which must be very instructive with regard to food, shelter, treatment, &c., when changes are found to produce an increased or diminished product in the milk-pail. In this respect Col. PRATT'S Dairy Farm is a model to the State.

☞ The Fifteenth Annual Fair of the Michigan State Agricultural Society will be held on the 23d, 24th, 25th and 26th of September, at Kalamazoo.

Inquiries and Answers.

POULTRY-HOUSE.—I have been looking over all your works that I have, (RURAL REGISTERS and Co. GENT,) for a suitable plan of a hen-house, and the quantity of land requisite for the accommodation of 300 hens, but I have not found one. I am quite a novice in building, and I want a plan of every timber, so that I would have no difficulty in making out a specification for contract. I have seen continuously mentioned in your paper, how people have, and are making their $300 or $400 per annum, and as I have money to spare, I would like also to try and see if I could not do the same. I want to keep geese, ducks, hens, Guinea-fowls, turkeys, and every kind of *feathered domestic;* and want the house so planned that hens will lay in it in winter, even through our coldest weather. By the bye, there must be a fattening, breeding, and laying compartments. I want to know how much time it would take, how much lumber, nails, shingles, &c., in fact everything, and I want it soon, as I intend building so soon as I get a decent plan. DARCY HEY, *Arnwood, C. E.* [We are unable to furnish such a plan as our correspondent desires. If any of our readers can, we shall be pleased to hear from them.]

PLANTING BLACKBERRY SEED.—At what season of the year should blackberry seed be planted, and how treated? R. H. B. *Salina, Kansas.* [Wash the seed of fully ripe berries from the pulp, mix them immediately with moist sand and bury them under a flat stone, or expose them in any other way to the combined action of moisture and frost, until next spring—when they are to be sown very early in fine, rich mould, not over half an inch deep. The moisture may be kept in the soil after planting, by covering with a coarse cloth, until the new plants reach the surface. They are, in short, to be treated precisely as nurserymen usually manage mountain ash seed.]

AMERICAN FARMING.—Will you please say for what price, and where, the best work on American Farming is to be had? GREENUP. *Canada East.* [We know of no single volume embracing a full and exhaustive consideration of American Farming. Allen's "Farm Book" is the best work of its price, ($1.25 post-paid,) and kind. Emerson's "American Farmer's Cyclopedia," (sent by express for $5,) is a full and valuable volume, and is nearer the probable wants of our correspondent than any other one book. But to cover the whole ground of practical farming, and for the amount of experience afforded on nearly every question that will arise, the set of THE CULTIVATOR 1853-1862, (10 vols., 384 pages each—sent by express for $7 50,) is far the cheapest form in which so great a bulk of information can be had; and as each vol. is accompanied by a very full index, the contents of the whole are readily accessible on any subject desired. For Farming, combined with Fruit Growing, laying out Country Places, and planning Country Houses and other farm buildings, our correspondent would find the set of RURAL AFFAIRS, (3 vols., sent by mail on receipt of $3,) his best guide and assistant. Any of the works named may be had at this office.]

HORSE NETTLE.—I send you a piece of a very obnoxious weed that I found on a neighbor's farm, the seed of which he thinks came in some guano. Please tell me the (*common*) name for it, (some think it is the Canada thistle,) and how to eradicate or destroy it? J. V. S. *Glenville, Md., July* 21. [The plant sent is the *Solanum carolinense,* or Horse Nettle, a native of the Southern States, and a very troublesome weed throughout the South. It is gradually extending north, and has been found in Pennsylvania. It has no affinity whatever to the Canada thistle, except in being very troublesome and spreading by the roots. It may readily be distinguished from all thistles by its single flower of five stamens, like the potato blossom, while all thistles have compound flowers. It has oval leaves with wavy edges and some prickles on both sides of the midrib; the stem is quite prickly. It is exceedingly tenacious of life, and its thick patches crowd out every thing else. To kill it, it should be kept spaded or plowed deeply under the soil, and watched that a single leaf may not breathe above the surface. In a few months the patch will be killed.]

BEST SEED FOR PASTURE.—What kind or kinds of seed, and in what proportions, is it best to use in putting down expressly for pasture only, a dry upland lot? The soil is a fair, sandy loam, freely dressed with muck and quick lime ploughed and harrowed in. The subsoil is clay, stirred several inches deep by the subsoil plough. *Essex Co., N. J.* [The red clover should enter largely into pasture or such soil as this—it will not be profitable for the pasture to remain more than two or three years without plowing up in the course of rotation. One half or one quarter timothy seed added to the clover will be useful, especially if the pasture is continued more than two years. On heavier and more moist land, with the addition of occasional top-dressings, permanent pasture would be admissable.]

CATTLE, &c.—As I wish to change my present stock of native cattle, what other kind would you advise me to get? I want stock that will make good milkers, and that will fatten well, and are quiet in disposition—of sheep, the best suited for the North—of swine, and of poultry. J. B. S. *Brush Valley, Pa.* [As to cattle, we have no hesitation in advising you to procure a good Short-Horn bull to run with your native cows. In this way you will make a great improvement by the first cross, and then by using pure bred bulls with your best grade heifers, you will in a few years have a herd that cannot fail to suit you. All the breeds of sheep are suitable for your location, and the selection must depend upon the purposes for which you desire them, whether for wool or mutton, and the amount of care and attention you intend to bestow upon them. The Suffolk and Chester Co. Whites are among the best breeds of swine. By referring to the descriptions of the various breeds of poultry, heretofore published in this paper, you can make a selection to suit yourself.]

SUPPOSED HEMP PLANT.—Enclosed I send you two leaves of what is called here "wild hemp," and which to me has some valuable properties. What do you know of it? Could it be cultivated to profit? It grows apparently from the root, without any or very little attention. In the fall each stalk yields quite a fine bunch of strong fibre. I. P. P. *Blair Co. Penn.* [Few plants are readily recognized by the leaves alone—it is like attempting to determine the blood or breed of a horse by a clip from the hair of his tail. The leaves, however, appear to be those of the *Epilobium speciatum*—a rather common plant, with somewhat ornamental reddish-purple flowers, and disposed to spread as a weed—but we never heard of its being used for hemp, and have doubts whether it would ever be of much value in this way.]

TURNIP CULTURE.—Will not some of your correspondents enlighten us on the subject of turnip culture, and the application of superphosphate of lime? GREENUP. *Canada East.* [We most earnestly wish that our correspondents who have had experience on this important subject, would contribute it for the benefit of others. It is one which ought to receive a larger share of attention and discussion.]

CANNING GREEN CORN.—Can you tell us hoosiers, through the columns of the Co. GENT., how to can green corn? W. G. L. *Southport, Ind.* [Will some of our readers please furnish the necessary instructions.]

WESTERN VIRGINIA.—Western Virginia being now a free State, we would like to know what inducements it holds out to those wishing to get a home elsewhere. Will some one acquainted with that section of country, please give through the COUNTRY GENTLEMAN, some of its advantages and disadvantages for an emigrant—to induce him to seek a home there in preference to the West? By so doing they will confer a favor on at least one INQUIRER.

HARROW FOR STIFF LAND.—Please inform me what is the best harrow for pulverizing hard stiff ground. Our soil here is as mellow and fine as any in the world, after it has been cultivated a couple of years; but when first plowed it is so full of fern, thimbleberry and salal roots, that it is almost impossible to get it into any kind of decent tilth under two years. We generally break the ground in the fall after the rains have set in, and if we could pulverize the surface in the spring, we could raise a good crop of peas. A. R. S. *Hazelia, Oregon, July 3.* [We should be glad to receive the results of our readers' experience, as to an implement likely to answer the requirements of our Oregon inquirer. We do not know what to recommend as best, under the circumstances described.]

MARKET FOR FLAX STRAW.—A considerable quantity of ground has been seeded in this section with flax. I have inquiries about a market for the straw or fibre. Can any of your correspondents advise me, through your paper or otherwise, *where* it can be sold, the probable price per ton, in what shape it can be baled for transportation, &c. Information on these matters is much wanted, and may greatly aid flax culture. PASCHAL MORRIS. *Ag. Warehouse, Philadelphia.*

CLARIFYING DOMESTIC WINE. — Will you please publish in THE CULTIVATOR, the best method of clarifying domestic wines? Please give the details as to the article used, the quantity, &c., and oblige at least one subscriber.
N. H. P.

DRAINING LEVEL LAND.—I notice in the June No. of THE CULTIVATOR, an article on draining level lands, signed by ASA HUBBARD. He says, to drain level lands, "dig a well in the most convenient part, down to living water; then dig a sufficient number of drains leading into the well to dry the land." The question I wish to ask in regard to it is this, why is it necessary to "dig down to living water?" Will Mr. Hubbard please answer through the columns of THE CULTIVATOR, and oblige A SUBSCRIBER.

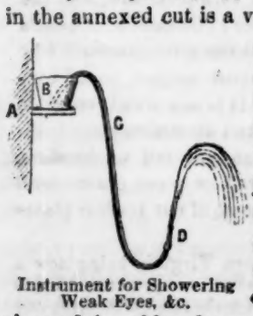
BAROMETERS.—J. P. S., *Harford Co., Md.* We have Wilder's Barometers for sale at this office in two styles—prices respectively $8 and $12. They can be sent by express, and will either of them answer the description you give. The difference in price is *mainly* in the case.

WORMS IN PIGS.—I noticed an inquiry as to what would rid hogs of worms. It is simply this—give hogs plenty of house ashes, and worms will never trouble them. A. R *Butler Co., Iowa.*

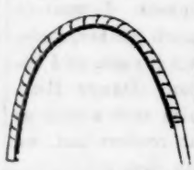
DRYING OFF COWS.—In answer to an Old Subscriber, I would say—milk the cow partially once a day, and rub soft soap on the udder each time. H. COVEY.

SHOWERING WEAK EYES.

Farmers and members of farmers' families are often troubled with weak or inflamed eyes, and perhaps there is no remedy of more general application than cold water. When the disease arises from the irritation of dust, the remedy is especially applicable. The contrivance shown in the annexed cut is a very simple, efficient and pleasant one, and should be in every family. It consists of an India rubber tube, about ¼ or ⅜ of an inch in diameter, and 5 or 6 feet long. Procure at any tin-shop a tin tube just large enough to fit the India rubber closely or with a slight stretching, to be inserted into one end of the tube. The outer end of this tin tube is closed with a piece of tin soldered across. Perforate this end piece with about seven holes, one at the center, the other six near the circumference; if these holes are placed near together, the jets of water will unite, which is not desired. The perforations are made best with a fine awl or drill about the size of a course pin, and they should be made pointing exactly parallel to each other, so that the jets may not diverge much. The instrument is now ready. Place a vessel of water on a shelf and insert the open end of the tube in the water in the form of a syphon. Place the lips on the jet end and exhaust the air. The water will immediately commence running, and will form a fine, soft, pleasant and refreshing fountain if directed against the closed eyes. The force of the jet may be perfectly controlled by lowering or raising the jet; if nearly as high as the vessel, the water will flow feebly, but if brought several feet below, it will spout up quite briskly. In ordinary cases the water should not be very cold—the temperature of about 60 deg. Fah. does well, but this may be varied from at pleasure, according to the agreeable sensation produced. The showering, if not too cold, may be continued from five to ten minutes at a time. A permanent syphon form may be given to the upper end of the Indian rubber tube by bending a piece of stiff wire, about a foot long, in the form of an inverted ∩, and then cording the tube to this wire.



Instrument for Showering Weak Eyes, &c.


Iron wire corded to the India rubber tube to form a syphon.

A LARGE FARM.

C. D. BRAGDON, Corresponding Editor of the Rural New-Yorker, gives a detailed account of his visit to the celebrated farm of M. L. Sullivant, Champaign Co., Ill., which he is bringing into cultivation, having personally occupied it two years. This farm is seven miles long and five and a half wide; it contains twenty-two thousand acres. In May last, eleven thousand acres of this farm had been inclosed, and subdivided into fields of a section or two, more or less, each. He had a large force building fence, and a month later he expected to have twenty thousand acres inclosed with board fence. He depends mainly on raising corn and feeding cattle for profit; and has at the present time over five thousand head of cattle. Of the eleven thousand acres above mentioned, eighteen hundred were devoted to corn, three hundred to winter wheat, forty to oats, and fifteen hundred to meadow. The rest are in pasture. Twenty-two thousand bushels of corn were sold at forty-two cents per bushel this spring, amounting to over nine thousand dollars; and five hundred tons of timothy hay brought five thousand dollars. There are also four thousand worn-down Government horses pasturing and recruiting on this farm. Seventy-five span of horses, seventy-five yoke of oxen, and some mules, are used for working it.

Each department of this great farm is under the charge of an able farmer. A blacksmith shop repairs all the iron parts of the implements, machines, and tools; a carpenter shop is constantly occupied with the wood-work; a cook feeds the army of hands, and the great dining-hall is under perfect systematic management; the gardener raises tons of vegetables for the men; the forty plows are under the charge of a man constantly in the saddle, to see that each plowman has his allotted work, and every thing is in running order; and the whole is under the charge of a general superintendent, who reports daily to the proprietor. Accounts are kept of every thing, and at the end of the year it is known with perfect accuracy, what every bushel of corn has cost, how much labor every animal has done, and in what direction the greatest profits are made.

CANNING FRUIT.

Eds. Co. Gent.—The subject of canning fruits is now in order, the season not having quite passed by. Different writers in your paper have furnished some valuable information for the benefit of the public. Although canned fruits cannot be considered as a substitute for dried fruits, nor in many respects equally important, yet they have become a necessity, and every accomplished housekeeper will endeavor to lay by a supply to keep up with the wants of the times. With some this business is still an experiment, and many a housewife when preparing to can her fruit is not quite as sure she will succeed with her fruit as with her oven full of bread, although the process is no more intricate, and requires no more skill.

There are certain conditions to be complied with, and if they are observed, success is reasonably certain. All agree that the fruit should be sound and fresh. It must be thoroughly heated or boiled, and in many cases thoroughly cooked—that is, cook it for canning about as much as you would the same fruit for the table. All fruits are subject to spontaneous fermentation—that is, they contain fermentative substance, which will surely produce fermentation under favorable circumstances. In canning fruit the first object is to destroy this tendency; heat destroys it. The boiling point is sufficient to destroy all germs of yeast, and other like substances, and generally to destroy all the germs of vegetable and animal life which appear in such vast numbers in all decaying or fermenting substances. Hence the necessity for a thorough heating or cooking of the fruit.

After having destroyed these germs of life and fermentation in the fruit, the next object is to prevent the introduction of new germs into the cans. This is to be done by sealing them up immediately and thoroughly air tight. Tin, glass, and earthen or stone cans are used. Earthen and stone jars are so porous that the air passes through them and introduces those very germs which we have taken so much pains to destroy; then the contents will gradually become infested, and in most instances a fermentation or decay will gradually take place. Even the glazing is usually too imperfect to be reliable. Glass is so easily broken that economy would discourage its use; and when the glass jars are closed with cork and sealing wax, in many cases these substances will transmit air enough with germs of vegetable and animal life to injure the fruit. When glass jars are used they should have tin, or some other metal, covers fitting closely. Tin cans are the most economical and effective; the covers should fit close; then they may be sealed with wax or sodered. The cover should be punched, the aperture being small, which may be left open a little while after sealing until the wax hardens The sealing wax should be composed of substances that will harden at the boiling point of the fruit, and not crack in cooling. It should, when used, be hot enough to flow freely. I usually procure it of some reliable druggist, tell him what I want, and get him to prepare it. I think rosin and gum shellac are both used; perhaps some other substances. Beeswax, tallow, or any other substance which will melt at a lower temperature than the boiling point, will not do; the sealing-wax must be thoroughly hardened before the cans have cooled much, and as soon as the wax hardens seal up the aperture in the cover. As soon as the cans are cool, examine them carefully by turning them in every position, to see that none of them leak; then place them in a cool, dry cellar. All of them will keep, if desired, through the next summer.

In heating or cooking fruit for canning, use about the same amount of sugar you would in cooking the same fruit for the table. It will assist in keeping the fruit fresh. It costs but little to have fresh cooked fruit almost every day from the time it fails in the autumn until it appears again in early summer. And when the conditions above described are observed, there is but little chance of failure. That the boiling destroys the fermentative principle in fruits is well understood by those who boil cider and bung it up closely while hot or warm. In that case no spontaneous fermentation will take place. Brewers introduce yeast to ferment their liquors after the fermentative substance has been destroyed by heat. The process of fermentation in bread is entirely arrested, and the yeast is destroyed by the heat in baking

To insure success then in canning fruit, nothing is required but a thorough heating of the fruit before and at the time it is put into the can, and a thorough exclusion of the cold air at all times afterwards.

Indianapolis, Ind. *.

Successful Mode of Canning Green Corn and Tomatoes.

Cut the corn from the cob when it is in nice order for roasting ears, and put it on and cook it three-quarters of an hour over a good fire, or until it is done. Then have your tomatoes pared and put in two equal measures of them, with one of the corn, and bring them all to a hard boil, or as hot as fruits are usually made when put up air tight. Put in salt enough for the taste, and stir it through. This appears to help keep it good; then can, as you would anything else, and my experience for it, you will have nice *corn and tomatoes* in the coming winter. I have tried it two years with uniform success.

Now I wish to inquire if any subscriber to the Co. Gent. ever succeed in canning green corn so as to keep it good? If so, please inform us through this paper soon.

Iron Furnaces, Ohio, Aug. 9. A. L. WOOD.

How to Clean Seed-Wheat.

I saw in the Co. Gent, an article from a Western farmer, describing his wheat, some which he said was smutty. Now I know, from long experience, that by washing the seed in brine as strong as it can be made, will prevent smut; it will also enable the farmer to skim out light wheat, chess, and almost anything else that may be in the seed, the strong brine bringing it to the surface much better than mere water. The wheat should, while in the brine, be stirred as long as any foul seed or light wheat rises; one bushel at once in a barrel is sufficient with plenty of brine; then dip brine and wheat into a basket. When drained a few minutes, empty on a clean floor; take the same brine for another batch, and so on until you have as much as you wish to sow that day; then sift on good slacked lime gradually, while another person follows around the heap and stirs it with a shovel; put on lime until the wheat will not stick together; then let it be sown and immediately covered; the lime will then continue to stick to the wheat, and be a good manure.

West Plattsburgh. JOHN T. ADDOMS.

The Lawton Blackberry Winter Killing.

The Lawton Blackberry is subject to being winter killed in many localities. I have heard complaints in portions of New-York, New-Jersey, Connecticut, and Massachusetts, many having given up the cultivation. I dug up mine two years since, they having been killed to the ground for a succession of winters. I have been induced to plant again this year from the success of Mr. Wm. D. Hall of Hamden, Ct. Mr. Hall is a successful fruit grower and a careful observer. His plan is to keep down all shoots that start until after the first of July. The canes that start early and get thoroughly ripened are the ones that are killed; but the shoots that start late prove hardy. This, I am aware, is against theory, but am satisfied is the true plan in case of the blackberry. I noticed in several plantations the past spring, that the largest shoots that started early were invariably killed, while the small ones that started late proved hardy. I hope those that have given up the cultivation of this noble fruit, will try this plan, and am satisfied they will not be sorry.

North Haven, Conn., L. BASSETT.

HOP AND POTATO YEAST.

MESSRS. EDITORS—In reply to CONSTANT READER'S inquiry of how to make good Hop Yeast, I copy the following directions from the Boston Cultivator, to make "Cake Yeast:"

"Scald some flour with strong hop tea; when cool enough to bear your finger in it, set it to rise with good lively yeast; set at noon it ought to be light enough in the morning; stir in as much Indian meal as is required to mould it into a lump; cut it into thin slices on a board or tea waiter, with a cloth spread over it, then set it in the wind to dry. It should be made in dry weather, or it may sour. Two-thirds of a teacupful will make a baking for an ordinary family. Soak 15 minutes."

My wife makes her hop yeast in the following manner:—Make a quart of very strong hop tea, and thicken it with Indian meal, thick enough to make griddle cakes; cool some of the hop tea before the meal is put in, and put in enough of the yeast cakes (which have been made at some previous time,) to make half a pint after it is soaked; then put the hop tea, after it is cool, and the yeast together, and let it rise till it is light; then stir in enough Indian meal to make it mould into lumps; then let it rise again till light, when it should be cut into cakes about one inch thick, and dried in the air. They should not be dried in the sun, or in a room where there is a fire, but in the shade, either in the house or out doors. The hop tea must be boiling hot when the first Indian meal meal is stirred in. A piece of this cake one and a half inches square, will raise a large loaf of bread, and if the yeast is good, the bread will need no saleratus or soda in it.

To make wheat bread with this yeast, soak a piece in water, and set a sponge with it the night before you wish to make the bread, and it will be light enough to mix up in the morning.

To make brown, or rye and Indian bread, with this yeast, soak about the same quantity of the cake, and put it in with the meal and water when the bread is mixed up.

My wife also makes a Potato Yeast, which she considers superior to any other kind of yeast she has ever used as it makes better bread, and is more convenient to use. It is made in the following manner:—Take ten potatoes of large size, pair, wash and boil them; when done mash them fine, and pour on them one quart of boiling water, and stir in one coffee cup of dry sugar. After standing a few minutes, pour on a *gill* less than a quart of boiling water; when it is lukewarm add one pint of the same kind of yeast if you have it, or of good hop yeast, to raise it. Put it in a stone jar and cover it up tight to ferment, and set it in a warm place till the potato rises on the top, and light foaming spots burst from the surface; then put the yeast in a stone jug and cork it tight. It will be necessary to tie the cork in and keep it tied, to prevent it being thrown out. After the yeast is put up it should be kept in a cool place; when wanted for use open the jug and stir up the yeast. One-half of a teacupfull of it will make a large loaf of bread. In warm weather the yeast is better to make only one-half the above quantity at a time, if but little is used. C. T. ALVORD.

Wilmington, Vt., July, 1863.

Shade Trees on Country Roads.

The following act was passed at the last session of the Legislature of this State, and is consequently now in force:

AN ACT to authorize the making of sidewalks and planting shade trees along highways in this State, other than in cities and incorporated villages. Passed April 7, 1863.

The People of the State of New-York, represented in Senate and Assembly, do enact as follows: SECTION 1. All persons owning lands fronting upon any highway, (except in cities and incorporated villages) may make and have sidewalks along such land in the highway, and plant and have shade trees along the roadside of such sidewalks; such sidewalks with shade trees shall not extend more than six feet in width from the outward line of such highway; provided such highway is not over three rods wide, with the right to add one additional foot in width to such sidewalk for every additional rod in width of said highway where such sidewalks may or shall be built or shade trees planted, and for the protection of such walks or trees, may also construct a railing upon the road side adjacent, and within two and a half feet of such trees or walks, of not more than one bar in height with posts, and also protectives at the ends, in such way or manner as not to prevent foot passengers from using such walks, but so built as may and shall prevent cattle from going thereon.

SEC. 2. This act shall take effect immediately.

ALL HAIL THE TRIUMPH THAT

FICKARDT'S CATTLE POWDER

HATH ACHIEVED!

THOUSANDS ARE TESTIFYING TO ITS EFFICACY.

"The Merciful Man is Kind to his Beast."

AFTER years of study and experiment by the Inventor, to compound from PURE VEGETABLE MATERIALS a Powder that SHOULD and MUST take the place of the thousand and one nostrums gotten up and palmed upon the public as "CERTAIN REMEDIES" for the cure of al diseases which the brute creation are "heir to," he has produced the one heading this advertisement, and none CAN BE GENUINE unless bearing our FAC SIMILE signature. The demand has been such that its sale has been chiefly confined to the State of Pennsylvania, but we have now consummated such arrangements that we are prepared to supply the numerous orders now on hand, as well as those we may hereafter receive from other States of the Union.

Knowing this powder to possess all the curative properties here set forth, we deem a fulsome tirade of words unnecessary, feeling assured that its OWN MERITS will secure for it a ready sale. Being composed of pure vegetable ingredients, it can be safely and judiciously given to that noble animal the HORSE. Its effects are no FALSE PAMPERING of the system, creating a bloated carcass with a premature shedding of the hair; but on the other hand, it strengthens the digestion, purifies the blood, regulates the urinary organs, thereby improving and protecting the whole PHYSICAL condition of the animal even when in an apparently healthy state.

To the Agriculturist and Dairyman it is an invaluable remedy for their NEAT CATTLE laboring under HOOF diseases, HOLLOW HORN, and other of the many complaints to which they are liable from a suppression of the natural secretions.

MILCH COWS are much benefitted by occasionally mixing with their slop or feed—it has a tendency to strengthen the animal, remove all obstructions from the milk tubes, promote all the secretions, and consequently adding much to the strength of the animal, quantity and quality of the Milk, Cream and Butter.

HOGS, during the warm seasons, are constantly overheating themselves, which results in their getting Coughs, Ulcers of the LUNGS and other parts, which naturally has a tendency to retard their growth. In all such cases a tablespoonful mixed in a bucket of swill and given every other day will speedily remove all difficulties, and the animal WILL SOON INCREASE IN HEALTH AND FAT.

☞ For sale by all Druggists and Dealers. Price, 25 cents per package.

AGENTS.—LANE & PAINE, 18 Buffalo-Street, Rochester, N. Y.; D. S. BARNES & Co., 202 Broadway, New York; and DYOTT & Co., No. 232 North Second-Street, Philadelphia. July 2—w&m6mos.

NEW-YORK STATE TILE WORKS,

NEAR THE CORNER OF

LARK & LYDIUS-STREETS, ALBANY, N. Y.,

WM. M. BENDER, Proprietor.

GEO. JACKSON, Superintendent.

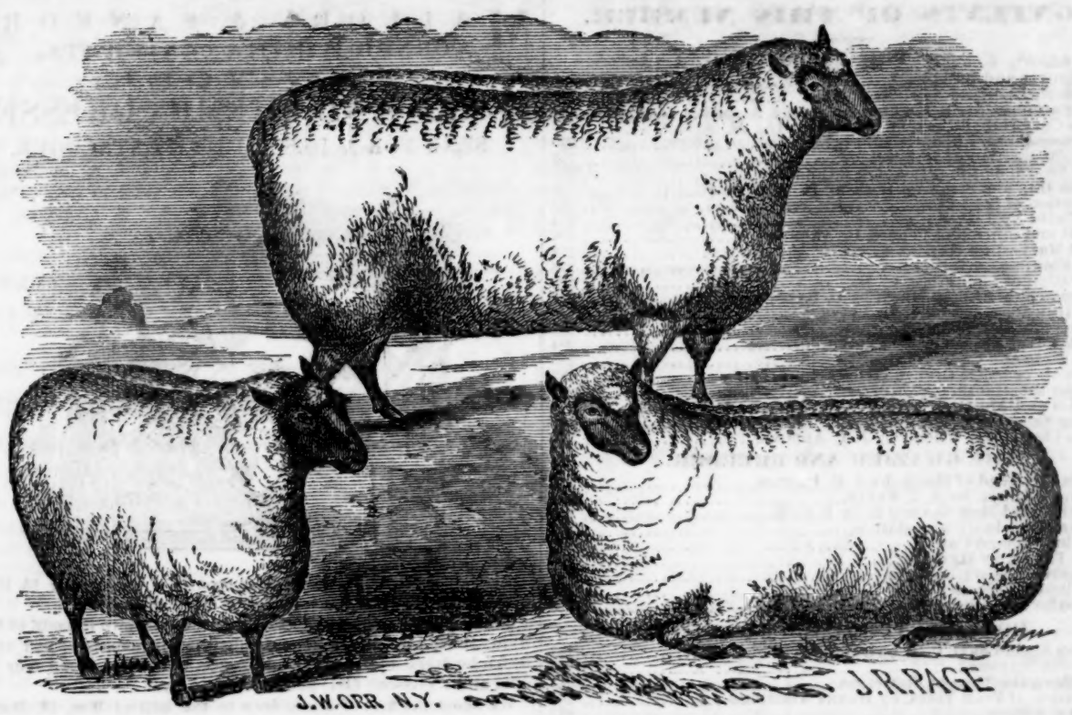
The subscriber is prepared to furnish Round, Sole and Horse-Shoe Tile, over 13 inches in length, by the cargo, or in the smallest quantity on demand, at prices that he will defy any other parties to undersell him. He will warrant his tile hard burnt, and to fit close at the joints, and altogether superior to any made in the United States.

All tile delivered on board of cars and boats in this city free of charge. Price list sent on application.

N. B.—Drainage to any extent and at any place done by contract and tile furnished for the same.

Also DRAINING TILE MACHINES for sale of the latest improved Patterns. For further particulars address as above. Ap. 9—w&m.

RIGHTS FOR SCHOOLEY'S PRESERVATORY, (in New-York and Pennsylvania,) for sale by J. L. ALBERGER, Buffalo, N. Y. Send for pamphlet. Nov. 3—wtf.



J. C. TAYLOR, HOLMDEL, N. J.,

BREEDER OF WEBB SOUTH DOWN SHEEP,

Would say to the readers of the Country Gentleman and Cultivator, after 15 years experience, that no sheep for MUTTON, WOOL, EASY KEEPING, AND AS A CROSS EITHER TO PRODUCE WETHERS, OR EARLY FAT LAMBS FOR THE BUTCHER, can equal the South-Down, and that no South-Downs have reached the perfection of the Webb South-Down. Having made it my constant aim to stand ahead of all other breeders for nine years past, and purchased of Mr. Webb, late of Babraham, England, his very choicest stock animals, by much effort and fabulous prices, I now claim to have a flock that has no superior in England or America, and now offer RAMS, EWES, RAM LAMBS and EWE LAMBS for sale at prices, according to quality and age, from $22 to $150 each.

Wishing to show my flock to all, persons leaving New-York or Philadelphia at 6 A. M. on Camden and Amboy Railroad for Freehold, can reach my place at 11 A. M., examine my sheep 2½ hours, and return to either city the same evening. Aug. 27—w&mlt,

STRAWBERRIES AND BULBOUS FLOWERS.

New Catalogue of 200 splendid varieties of Strawberries, including all new ones, mostly described in last Patent Office Report, and Catalogue of Bulbs and Pæonies, &c., sent to applicants enclosing stamps. Strawberries and Bulbs sent from August to November.

July 30—w2tm1t. PRINCE & CO., Flushing, N. Y.

FOR SALE.—The celebrated ALBANY NURSERY,

the property of the late JAMES WILSON.

This well known Floral Garden, embracing 5 or 6 acres of ground, with dwelling house, conservatory, gardener's house, extensive outbuildings, hot-beds, shrubbery, stock of forest trees, evergreens &c. is offered for sale on the most reasonable terms.

It is situated on the south side of Lydius-Street, opposite Knox, a most eligible location. It has been brought to its perfection at much labor and expense. For particulars enquire of

HOFFMAN & ROWLAND, Real Estate Brokers,

July 30—w2tm2t. No. 55 State-Street, Albany, N. Y.

PREMIUM CHESTER COUNTY WHITES.—THOMAS WOOD

Penningtonville, Chester Co., Pa.,

Continues to ship to any part of the Union these celebrated HOGS in pairs not akin, at reasonable terms. April 16—w&mly.

TO CHEESE MAKERS!

RALPH'S PATENT IMPROVED "ONEIDA CHEESE VAT,"

Was awarded the FIRST PREMIUM by competent judges, after a thorough test of merit, at the New-York State Fair 1862. It is the most simple, durable and effective cheese making apparatus in use. Is used in dairies of 10 to 1,000 cows. The only vat well adapted to "factory" cheese-making. More economical in use than steam, and much less expensive in cost.

We have on hand, ready for delivery, all sizes, varying from 84 to 355 gallons, and make to order larger sizes for factory use.

Circulars containing description, size and price list, and directions for using, sent on application to

WILLIAM RALPH, } WM. RALPH & Co.,
JOHN CARTON, } 133 Genesee-St., Utica, N Y.,

Manufacturers and dealers—wholesale and retail—in Dairyman's Tools and Implements. Feb. 12—w&mtf.

IMPROVED SHORT-HORNS FOR SALE.—

The subscriber, wishing to reduce materially the number of his herd, offers for sale at low prices, BULLS, BULL CALVES, COWS and HEIFERS, all having

GOOD PEDIGREES.

A Catalogue will be sent, with prices marked, to any one desirous of purchasing.

Apply at Ellerslie Farm, one mile south of Rhinebeck Station, Hudson River railroad, or by letter addressed to

May 14—w&mtf. WILLIAM KELLY, Rhinebeck, N. Y.

CRAIG MICROSCOPE.

This is the best and cheapest Microscope in the world for general use. It requires no focal adjustment, magnifies about 100 diameters, or 10,000 times, and is so simple that a child can use it. It will be sent by mail, postage paid, on the receipt of $2.25, or with six beautiful mounted objects for $3, or with twenty-four objects for $5. Address

HENRY CRAIG,
180 Center Street, New-York.

A liberal discount to the trade.

Retailed in Albany by GEORGE F. UDELL, 536 Broadway, and by BENJAMIN MARSH, 34 State-Street. In Troy by YOUNG & BENSON. April 2—w&m1yr.

DELAWARE GRAPES.

After some years of experiment, the subscribers have adopted a mode by which they can produce plants of this valuable grape with abundant fibrous roots, at the following very low rates:

1st Class, $25 per 100, $200 per 1,000. | **2d Class, $15 per 100, $100 per 1,000.**

Of these one year old, they can furnish 50,000, deliverable in October and November.

Those who wish to plant largely will do well to examine this stock before purchasing, and to send their orders early, as the demand last year exceeded the supply.

Those who wish can also see THREE ACRES of Delaware Vineyard in full growth.

CONCORD and other grapes furnished by the 100 or 1,000.

Address PARSONS & CO.,

Aug. 13—w5t. Flushing, N. Y.

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AND YOUR FUNDS!

Until you have sent for

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for 1863-4, which indicates that you can purchase GRAPEVINES and plants of other SMALL FRUITS, as good as the best, far superior to most, and cheaper than at any other establishment. Grapevines being with me a specialty, my stock large, including about

All Varieties Worthy of Cultivation,

It will be an object to vine dealers to make early application, as last year the demand exceeded the supply. Address

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Aug. 27—wtf.

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This First Premium Wine Grape has been thoroughly tested in Lat. 43° for 20 years by many cultivators and found to be hardy, vigorous and productive; it makes a high colored rich wine. Strong vines sent by mail for 50 cts. each. Large deduction by the quantity. From $5 to $100 may be made by any local agent without leaving his home. Agents wanted. For liberal terms, and wholesale and retail Catalogues of the Lyons Nurseries, address

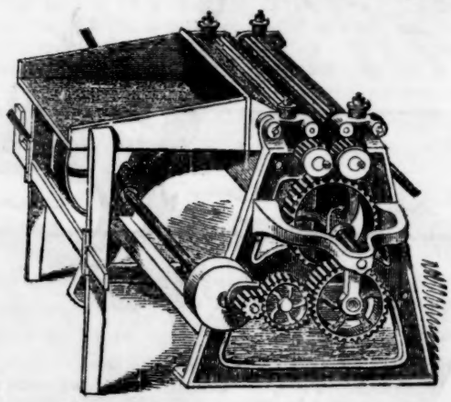
E. WARE SYLVESTER, Lyons N. Y.

Aug. 27—w2t.

MALLORY & SANFORD,
CORNER WHITE & CENTER-STS.,
NEW-YORK.

FLAX AND HEMP DRESSER.

SEND FOR A DESCRIPTIVE CATALOGUE.



MALTA, SARATOGA CO., N. Y., Aug. 10, 1863.

MESSRS. MALLORY & SANFORD:

Gentlemen—On the 19th day of March we drew to the mill of N. G. Akin, thirty-nine hundred and thirty (3930) pounds of flax straw, which he dressed through the old Brake, and we received four hundred and eighty-one (481) pounds dressed flax

We about the first of June, drew to the mill of Wm. H. Buckley forty-four hundred and ten (4410) pounds of flax straw, which was dressed through one of your Patent Flax Brakes; we received eight hundred and five (805) pounds of dressed flax.

The flax was grown on the same piece of land, and there was no perceptible difference in the quality of the flax, except that the portion drawn to Akin's mill was rotted in the fall of 1862, and that drawn to Mr. Buckley's mill was spring rotted, which is considered not so good, from the fact that it loses part of the oily matter from the fibre, and does not yield as much per ton of straw as the fall rotted.

You will perceive by the above statement that we received from Mr. Akin's mill 245 pounds nearly of dressed flax per ton of straw, and from Mr. Buckley's mill 365 pounds of dressed flax per ton, which makes a difference of 120 pounds per ton in favor of your Brake.

We are recommending our neighbors to take their flax to one of your Brakes to have it dressed, although it is 15 miles to the nearest one at present.

J. B. WEEKS.
L. L. WEEKS.

I certify that the above statement is correct, as I saw the weighers' receipts for both lots of straw, and weighed the dressed flax myself that was dressed at my mill. The flax dressed at Mr. Akin's mill is correct, no doubt, as the above gentlemen are perfectly reliable.

Aug. 27—weow2m3t. WM. H. BUCKLEY.

BOARDMAN & GRAYS'
PATENT IMPROVED
INSULATED IRON RIM AND FRAME

PIANO FORTES.

MANUFACTURED BY
WILLIAM McCAMMON,
(Successor to BOARDMAN, GRAY & Co.,)
Albany, N. Y.

☞ Send for illustrated price list. Nov. 27—w&mtf.

QUINCY'S ESSAY ON THE SOILING OF CATTLE, giving full directions for the care of cattle by this method. Price 50 cents. For sale by
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